

The Master Locksmith Security Encyclopedia Set©
Locksmith Security Training Course Physical Security

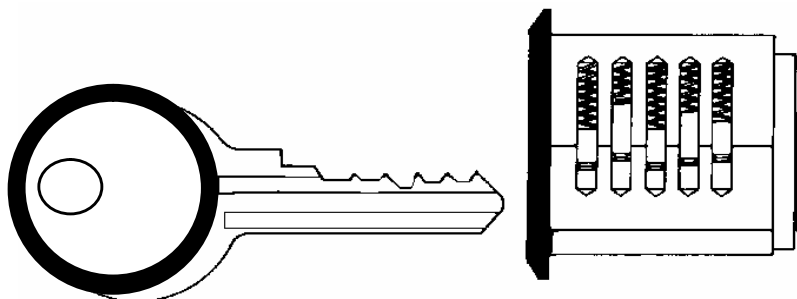
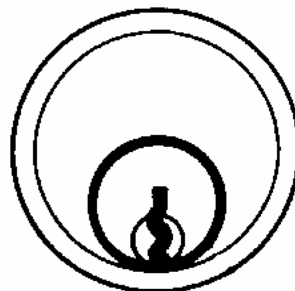
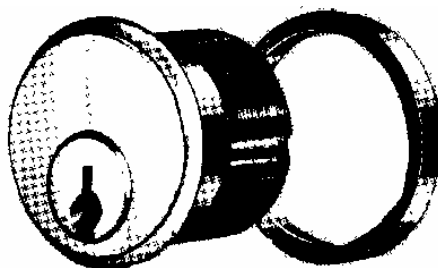
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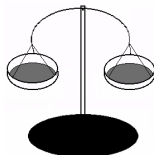
Basic Lock
Operations and Fundamentals©

Please use your
Master Locksmith Security Encyclopedias Set© Dictionary©
Along with this Training Course



* Please use the Master Locksmith Security Encyclopedia Set© Dictionary© and look up the Underlined Words as you encounter them.
The Locksmith language is important to learn.

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Author

John Clymer II



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www.asalocksmith.com

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The Master Locksmith Security Encyclopedia Set©
Locksmith Security Training Course Physical Security

Introduction

Hear Ye, Hear Ye! Let it be Known:

Any similarities between places or people mentioned; living or dead, fiction, semi fiction, or what may be factual, are merely coincidental. Any ideas or writing are solely the authors and are not endorsed by the publisher.

The words and or phrases which are underlined may be found in the Master Locksmith Security Encyclopedia Set © Dictionary. © Please look up any words which you are not familiar with or do not know the meaning to.

For a further in depth meaning of a word and or phrase, please refer to the vast number of Books and Videos which are offered through the Master Locksmith Security Encyclopedia Set©.

The Author has used this method of instruction for many years around the Glob with unsurpassed results.

Thank you.

Disclaimer

This application notebook contains installation ideas and tips. Although they have been developed by engineers and installers, The American Security Academy (ASA), It's; writers, Instructors, Installers, employees and not limited to these, disclaims any liability for injury or losses due to this information. This book does not supersede codes and/or ordinances or regulatory standards. ASA reserves the right to change product specifications at any time. Any and all Licenses and Permits should be acquired and the proper insurance carried. Always follow the instructions accompanying any Materials and or Equipment. Always wear your Safety Glasses.

**The Master Locksmith Security Encyclopedia Set©
Locksmith Security Training Course Physical Security**

Welcome

Thank you for purchasing the Master Locksmith Security Encyclopedia Set©.

I am confident you will receive a lifetime of information from this set of well composed literary work.

Please remember to always be a credit to your community, and use your knowledge to help society, not to hinder it.

Always remember there are two ethics; Positive Ethics© and Negative Ethics©. You have to choose which is the best ethic to follow; Positive Ethics© or Negative Ethics©.

The "Locksmith" Security field has endless Positive Ethic© possibilities.

These are the ethics which the other programs and followers do not adhere to, nor do they teach.

This is what I would like to convey to you. Positive Ethics©. as a Global Security Specialist©, "Locksmith", Alarm Installer, Detective, Auto Openings, Investigator, Inventor, Mechanic, is of the highest importance.

This exciting, extensive program is the first of its kind. Anywhere. It cannot be found any where else.

If you do not know anything about Locksmith & Security work. This is where you need to start.

The Master Locksmith Security Encyclopedia Set© will be handy for years and years to come. You will find yourself reaching for it many times, so keep it close at hand. **Do Not Loan It Out.**

Always Remember The Following:

* Keep all Security information from the hands of anyone who may put it to the wrong use.

Again, Positive Ethics© and Negative Ethics©.

* Protect your investments.

Your Master Locksmith Security Encyclopedia Set© and any other learning materials and tools should be highly protected and guarded all the time.

* Use the Master Locksmith Security Encyclopedia Set© to help you learn the phrases and words of a Global Security Specialist©.

Start being a Global Security Specialist© today.

**The Master Locksmith Security Encyclopedia Set©
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I hope this Master Locksmith Security Encyclopedia Set© is helpful in bridging you into the world of "Locksmith" Security. It will help you build a secure foundation for your future.

There are many books in the industry to be read. With this in mind, I have designed the Master Locksmith Security Encyclopedia Set© to be the most complete learning set available for the trade.

The Master Locksmith Security Encyclopedia Set© is designed to introduce you into each individual Dictionary© phrase of "Locksmith" Security. Each phrase may be a subject in the "Locksmith" Security industry, and each phrase may be accomplished individually.

This Encyclopedia, and the information it contains, is a comprehensive introduction into the fascinating study of Locksmithing and Security. There is an extensive pre-viewing of each word or phrase to help you decide if the field is appropriate for you.

Although the literature content is extensive, it could never cover any field in its entirety. There is new information and data to learn every day.

I am in no way claiming any one book or video of subject matter is complete in its entirety, nor am I a master of any one field in its entirety.

I know Security as a whole and can show you the direction to begin your Locksmith / Security learning and training.

The job I have set out to accomplish is to instruct and teach you this trade with the aid of the Master Locksmith Encyclopedia Dictionary©, accompanied with the books and videos of the Master Locksmith Encyclopedia Set© . I want for you to understand how to apply the information contained in this learning set, and the reasons why.

I would like you to have a basic understanding of Global Locksmithing Security through the words and phrases used every day. You should be able to make the decision to be a "Locksmith" Security person or not, based on solid facts.

You need to have the information close at hand and to have a professional in the Security field personally explain each phrase and or word in a Positive Ethics© way.

You may review the phrases over and over again as necessary.

Reading the phrase or seeing it first hand in video format to enhance your learning experience.

**When I began Locksmithing, I had no videos to
enhance my learning.**

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Utilizing the videos, I will be at your side to help you personally to learn each phrase.

You may read and or view the literature or video phrase over and over at your leisure in the privacy of your own home.

Those of you who are more visual or audio oriented learners, will find my videos and tapes a boost to your learning curve. Take your time. Review and re-read.

Do not forget to practice, practice, practice.

Reading this material and practicing, indicates you want to learn and better yourself.

Now you too can easily learn the "Sacred Trade." The sacred trade no one would teach me.

I asked several "Locksmiths" what the laws were for "Locksmithing."

They told me Federal Law only allowed so many "Locksmiths" to serve so many people. This is not true. If someone were to propose such a law, you should oppose such a movement.

For many years, while I was growing up, I believed this myth.

Thus, it stopped me from entering the trade a few years sooner than I could have started.

You will save money and aggravation with the methods and materials I am showing you.

Watch Your Six
(Your Back)

I want you to be able to start a business of your own, or work for someone else in the Security field any time you wish.

I had no one to teach me, only myself. It cost thousands and thousands of dollars. I bought tools and books which were not needed.

"Locksmith" Security Distributors and "Locksmith" Security Manufacturers taking advantage of me and taking me for a ride.

A ride you will not take with The Master Locksmith Learning Program.

I have taken "Locksmith" Security mail order courses that were behind the times by about twenty to thirty years.

Long lonely hours, reading, practicing and re-reading.

I was very nervous about starting my own "Locksmith" Security business. I was fortunate I had enough faith in myself to go ahead and start my own company.

I learned the hard way, so you do not have to.

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I want you to loose the nervousness and worry, and put this energy into applying yourself and learning all you can from me.

Follow Positive Ethics© and it will all fall into place for you. It did for me.

Some of the companies selling "Locksmith" courses know nothing about "Locksmithing" at all. In fact the instructors are editors and printers, not "Locksmiths."

Others just have re-print rights and just re-copy the information and send it out.

Many older (wiser) people have told me, "John, lack of communication. That is the trouble with the world."

Thus, the creation of the Master Locksmith Security Encyclopedia Set© and Dictionary©.

You must have a Master Locksmith Security Encyclopedia Set Dictionary to understand clearly what you are talking about, so you may converse fluently with others in the Locksmith/Security field and those who are outside the field.

Different words and phrases mean many different things in different places and environments. It can be very, very confusing.

After each Master Locksmith Security Encyclopedia Set© Dictionary© word or Dictionary© phrase, you will find a word in **(Bold)**, in **(Parenthesis)**. This word is to guide you to the field in which possibly could use the word or phrase.

Example:

Relay (Alarm) - a relay is simply an automatic switch. As long as electrical power is applied to a relay it will remain in a certain position. When power is interrupted or secured, the relay will change to another position. The changing of positions will work to either open or close electrical circuits. Example: the extremely low output of an automobile alarm system flashing light wire may need a relay to provide additional power to flash the lights.
See On Board. See Starter Kill. See Remote Auto Start.

This means the word of interest "Relay", may possibly be found in the area of Security under Alarm.

This is only a guide. Any words or phrases pertaining to electronics may be listed as **(Alarm)** .

Although usually only one **Bold** word is given, there may be several fields in which the word or phrase may be used. However, due to space restriction, I have only indicated one or two **Bold** fields out of several possibilities.

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(Alarm, CCTV) etc ...

(PI) = Detective (HA) = Home Automation.

Each exciting Master Locksmith Security Encyclopedia Set© Dictionary© phrase may be a learning experience with great content of useful information with a Positive Ethics© approach.

I have Underlined words in the individual volumes of the Master Locksmith Security Encyclopedia Set© with the intention you will look up the word or phrase in the Master Locksmith Security Encyclopedia Set© Dictionary© to learn.

The Master Locksmith Security Encyclopedia Set© Dictionary©

will help accomplish this. It is designed for you to look up the Underlined words as you encounter them.

I strongly urge you to have the Master Locksmith Security Encyclopedia Set© Dictionary© at hand during your learning experience.

Read what the Underlined word or phrase means. Cross reference when you need to.

If the phrase is enhanced by the use of literature, video, audio, tools or other means as indicated by the Dictionary© phrase, then I strongly suggest you acquire the material in order to read and or visually see the meaning and understand it more clearly to its fullest capacity.

Read the Master Locksmith Security Encyclopedia Set© Dictionary© in the same respect you would read a book.

Please be aware every effort has been taken to assure the phrases, terms, words, rules, and laws, etcetera, are correct. The terms, words, rules, etcetera are not my opinions, nor do I condone, agree or disagree with any or all of them.

It is up to the buyer, not the seller, to obtain legal advice with any phrases, terms, words, rules, laws, etcetera, before putting such into use.

We apologize in advance if you find any of the Master Locksmith Security Encyclopedia Set© incorrect. We have made extensive efforts to ensure the materials which are presented to our readers, is of the highest quality.

The phrases, terms, words, rules, laws, etcetera, have been compiled over one individual's lifetime of professional Security work. This individual working and breathing Locksmithing and Security twenty four hours a day, every day of the year.

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Many people have contributed to the Security field over many, many generations. My goal is to contribute by collecting and combining all of the information into an obtainable, logical, readable, comprehensible, affordable format to people who are interested in the Locksmith / Security trade.

Several different definitions may exist for one phrase, term, word, rule, law, etcetera. It is up to you to decide, which application applies, or if it applies at all.

The information offered is to be utilized by non-"Locksmiths," Security individuals, domestic sales ladies, welders and iron workers, all the way to the seasoned Security specialist around the globe.

There is one basic rule to everyone. Use **Positive Ethics©** at all times.

Again, common sense and **Positive Ethics©** should always prevail.

If you would like to contribute one or more phrases, terms, words, or rules, you are more than welcome to.

I encourage everyone's involvement.

Please send me your submission for consideration.

Thank you.

There is an abundance of reference materials about the Locksmith/ Security trade available for you to read.

Intriguing catalogues and materials may be found if you search hard enough.

There is a fantastic building in your town called the library.

Check it out. Stop by one day. This is an endless resource of amazing information.

I have written not just about Locks and Security, but about attitudes, Positive Ethics© and Negative Ethics©. This is so you will be aware of what goes on in the Locksmith Security industry. You will have the complete picture, not just a piece of the picture. This is a part of what makes this program stand out from the other Locksmith programs available on the market today.

You will see letters I have sent to businesses along with reading individual experiences, or as I like to call them, a "**Case History**".

All of this is part of "Locksmith" Security work.

The experiences I write about are for you to use and make judgment on any way you like. For good or bad.

You will find there are many, many companies involved in the "Locksmith" industry who conduct themselves with Negative Ethics©.

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I have dealt with, and in thousands and thousands of dollars worth of stock and money, with Negative Ethics© vendors in the trade.

Thousands of hours of my Positive Ethics© time, stamps, phone calls, faxes, money and more.

Many times, (most of the time) I have dealt with very dishonest and deceitful individuals and businesses with Negative Ethics© who are involved in the "Locksmith" Security industry. It is hard to imagine these same individuals classify themselves as being in the "Locksmith" Security trade and or business.

A warning to the wise; be careful.

You will step in it, and it does stink.

Many dealings with other "Locksmith" Security" "Distributors" "Manufacturers" left sour tastes in my mouth. As well as Negative Ethic© dealings with private "Locksmith" individuals.

These Negative Ethics© business dealings are included in my writings in this Encyclopedia and future books to be published.

I hope you look for my works.

After spending thousand of dollars on stock and tools from many companies for years, these same companies would not even know who I was when I corresponded with them.

I wrote the company a dozen times and made follow up phone calls and not once did the president or anyone write or return my calls. I must have spent at least thirty five thousand dollars on their lock stock over a ten year period.

The product may be great, but if you can not get service, or as with other companies who have the bad attitude of, "It is your privilege to carry our stock." Move on to another vendor.

Why put up with it? There are so many other companies and distributors eager for your business.

I have contacted many, many "Locksmith" Security Distributors and "Locksmith" Security Manufacturers in this industry to try and acquire tools at a discount for my students. None wanted to help you (the reader). Most of the attitudes were we do not need you or your readers. At least we know where we stand from the beginning.

Let me tell you, it is a continuing battle.

Just remember, they all want your hard earned **money \$\$\$**.

They do not know or care who you are.

They are not concerned about true "Locksmith" Security, only the sale and making \$\$\$.

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Make them work for your money. This includes being nice as well as being courteous.

Change the industry. Let these Big Bad Companies know that you want product, service and above all a Positive Ethics© attitude. If they can not provide these things, shop else where.

You will understand as you go.

I am trying to keep you alive so you will survive.

I do not endorse any product, Distributor, Manufacturer or individual at all, in any sense, in any of my publications.

Any writings that may come to you with the Master Locksmith Security Encyclopedia Set© are from companies who cared about their product and reputation in the Security field. Companies who wanted to contact you the reader and possibly generate sales using Positive Ethics©.

There are good companies with Positive Ethics© out there in the Security business. Write or call them to request catalogues. Be inquisitive and ask questions.

As you will soon find out, by the American Security Academy Material's, we only carry and use the best stock available

I was honest and told each Distributor and Manufacturer I was indeed writing an Encyclopedia of the ins and outs of the trade.

I was told by several old timers as well as my attorney not to compromise anyone. He said, "Tell each person you deal with you are writing a book, or encyclopedia. Your experience with them will be included in this set of books."

I told each company several times so there was no mistake as to my intentions. They all acted as though I was a story teller.

Almost every "Locksmith" Security Manufacturer / "Locksmith" Security Distributor laughed, sneered or tried to belittle me in my attempts to help you.

Medeco High Security Locks told me they did not know who I was and had never heard of me.

I had previously purchased several of their High Security Systems for a Police Station. They also told me the only reason I wanted to mention them in my lessons, was to make myself look good.

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They seemed not to care how they conducted themselves at all. Even when I reiterated several times about my writing about them, their business practices, and their attitudes. They were not concerned the least bit.

When you deal with "Locksmith" Security companies in this business, they will set you straight on where you stand for product, service, reliability, and Loyalty.

One. Do not put up with flax from any company. I found most "Locksmith" Security companies and people I have dealt with, had shady business practices and lacked honesty, They also had bad attitudes to boot. This is Negative Ethics.©

Two. There are a few " Locksmith" Security companies, very few, in which to do business with out there who have good attitudes and might possibly be honest. Very, very, few. Positive Ethics.©

Three. If you spend your hard earned money on purchasing a "Locksmith" Security companies stock, they should know who your company is and your name. It is just plain common courtesy. They should return any and all correspondence by phone or writing promptly. This should be with peace and kindness in their voice or letter. Not hostility, anger and jealousy. If they do not acknowledge your existence, or treat you any way except with "Locksmith" Security Positive Ethics© professionalism, drop them !

Four. If the company has a bad attitude or does not help or try to correct a bad situation. Drop them immediately! Ever hold a hot potato? Not for long I bet. Follow this logic when dealing with a company who does not treat you with decency and respect.

Move on.

There are many, many companies in the Security industry. Why deal with Negative Ethics?© There are companies who do follow Positive Ethics©. You have to search a little harder for them.

I offered to advertise for free for dozens of "Locksmith" Security Manufacturers, "Locksmith" Security Distributors and the like only to be called names and belittled.

For me to use their Distributor or Manufacturer name was an honor.

This is the attitude I received and the attitude you will most likely receive.

I was only trying to be nice and promote "Locksmith" Security, Positive Ethics©.

I have shopped and have been in the business for years and have not been happy with product, cost, or service.

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After spending thousands of dollars on any one particular company over years of patronage, any one of them treating me as though I were wasting their time.

Other companies just plain rip me off. The products are Security oriented, but the individuals, wellmost practice Negative Ethics©.

I do not want this to be the case with you (the reader).

I am showing you the Security industry from the inside out. You must know and be aware of what goes on in order to survive, or the sharks will eat you alive.

No one told me.

I was bitten many, many, many times. Almost to death.

The only thing the Manufacturers and Distributors want is your money \$\$\$.

To those of you who read this and think I am writing about you, you should not have conducted yourselves the way you did or you would not be reading or thinking I wrote about you in this book.

If you read this and feel any statement is untrue, then please write me and tell me differently. I have paper work, proof and or witnesses to everything stated in this Master Locksmith Security Encyclopedia Set© and anyone is welcome to challenge me at any time .

I encourage it, and I am waiting.

The Security industry is crazy. You take control. Do not put up with it.

You work very hard to earn a dollar, so be decisive on whom you buy product from and whom you do business.

As you will learn, these types of poor business procedures can put you out of business, fast. If you are slowly losing your money, you will slowly go out of business.

The time you spend along with money spent, stress and energies, could have been spent practicing Security, self improvement, and or improving your business procedures.

You must understand if you expend money, you must recuperate it, and hopefully with a profit.

My dad told me:

"You must make a profit or you will not stay in business."

I have learned quite a bit in the Security field, and if I can help you as my student to save you money or help protect yourselves from a scam, it makes me happy and proud.

Isn't this what it is about? "Locksmith" Security work?

Positive Ethics?©

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My accountant, who was the tax collector of the town I used to live in, Sherborn Massachusetts, not only (embezzled) misappropriated \$70,000.00 plus out of my company over a five year period, but I found out later she is and was an illegal alien.

After years of court and attorneys fees, I only received \$5,000.00.

It cost me \$8,000.00.

I paid my attorney and was negative three grand. ?????

No one cared.

Oh, by the way, she is also a practicing "Locksmith." Everything she knows about the Security field, she learned from me. Talk about being burned, bitten, scammed and taken for a ride.

After she left my company, she went directly to another Locksmith company with my hard earned money and trade secrets. She gave a lot of my company secrets to the man and then was to marry the "Locksmith" owner.

Sounds a little "fishy" I know.

Hind site is the best teacher. Sharks.

In the "Biz" she would be classified as a "Spy."

A conspirator... ,and well...., a few other choice words.

Remember though, she is a Certified "Locksmith" and she will protect you and your family.

I tell you this so you will understand snakes come in all shapes and sizes and can be difficult to identify sometimes.

They look like you and I and they wear badges and robes. Some are called by the name or names of doctor, laborer, Notary, or drive fork lifts.

This is the very reason I do not mention very many Distributors, Manufacturers, "Locksmith", Security names in my writings. I am afraid that by using any particular name they may make "Me" look bad.

I may sound bitter, I am not. I am well educated. At the time of this printing, I have spent nearly twenty years in the Locksmith / Security Industry.

Remember, one lies and the other swears to it.

I took a beating, some bad bites which nearly killed me, I hope I can save you.

I do not want you to be burned and eaten alive. Keep a sharp eye out and protect yourself. Never trust anyone.

If it seems too good to be true, it probably is.

If it seems too good to be true, it probably isn't.

Either way you loose.

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I hope that my experiences help fill in the barren unanswered areas of business and what to watch out for in the "Locksmith" Security business world. There are so many fields in the "Locksmith" Security business, one almost does not know where to start.

Never lend your tools out to anyone under any circumstances.

Never a borrower nor lender be.

When you put your tool box down, keep it shut tight and near your side. Don't let people poke around in it or in your vehicle.

Never let someone use your tools. For example, let us say you are attempting to open an automobile on one side of the car and the Client wants a tool to try and open the other side of the car. Etc...

No, no, no!

There are many reasons, one of which you are to blame for any damages.

My own quote;

"One thief locking out the other thief."

If you are Re-Keying a Lock, keep track of where your new Bitted Keys are if you are at a work site.

Once the Keys disappear, even for a short time, your Security has been breached.

- Keep the Keys in your pocket.
- Never give the Keys to anyone except the person who has hired you. Unless instructed by that very person to do something else with the Keys.
- Always hold onto the Keys until you are paid for the services you rendered.
- No job is complete until you have been paid in full for the work and services you have rendered to the client. This includes thirty day invoices (this another area of subject matter unto itself).

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My parents always told me:

"Help society, do not hinder it"

I am sure I can not touch every Security subject, but I will attempt to with the Master Locksmith Security Encyclopedia Set©.

Here is a sampling of what is in the Security world, and by no means is this a complete list.

Door Closures, Hardware, Brass Bar Railings, Electric Hinges, Retina Readers, Voice Activation, Voice Recognition, Cameras, Suit Cases & Locks, Foreign Automotive, Motorcycle, Domestic Automobile, File, Desk, Glove Box, Handcuffs, Bicycle Locks, High Security Cylinders, Safes, Tear Gas Deployment, Systems, Investigationspew.. and many more areas to be explored.

These are just a few Security fields in a never ending assortment of what is available or you to accomplish .

Each one of these fields may become an occupation unto itself.

There are thousands of Security fields to choose from. Each being a Dictionary© word or phrase.

Because of the vast range of fields available to the "Locksmith" Security person to get involved with, I have broken the Master Locksmith Security Encyclopedia Set© up into individual learning fields.

In this way you may learn at your own pace, exactly what you want to learn, when you would like to learn it.

Step by Step.

Everyone always wants to learn how to defeat / circumvent (Pick) a Lock so they can say they are a "Locksmith."

This is not Locksmithing, but rather just Picking a lock.

(Remember; look up the "Underlined Words").

The fields of interest available vary so much, I have made each field a personal learning experience. Each within itself.

There is no need to spend thousands and thousands of dollars worth of tools and or equipment and supplies.

Now you only need to view that particular field of interest in the Master Locksmith Security Encyclopedia Set©.

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If the field of "Locksmith" Security does not interest you, you may inexpensively move on. Still retaining the field of excellent information in your Master Locksmith Security Encyclopedia Set© and keeping it close at hand for future reading and viewing.

Extensive research went into all materials.

I would suggest you tackle the basics before moving on to the more advanced parts of the library.

However, if you are confident in yourself, please feel free to tackle any phrase or word you desire.

I will be providing and updating Security information for a long time to come and will release the information as it becomes available.

The Encyclopedia section Office & Operations should be considered mandatory reading material if you plan on starting your own business.

The Advertising section will also prove to be beneficial to you if you are to promote your new business.

Both of these phrases are must have materials if you want to learn about this aspect of the business.

The phrase "Legal Locksmith Bond"© should be considered and is encouraged if you are serious about doing business in the "Locksmith" Security field. Positive Ethics©. You will find the public feels more confident hiring a bonded person.

It can also bring you a higher dollar.

Remember to look up the underlined words as you encounter them.

The other Locksmith courses available do not even touch the subjects of Business Management, Phone Operations, Records, Advertising, Computers and other areas which keep a business running smoothly.

They do not tell you the sharks are out to eat you and all the other Negative Ethics© involved.

Honesty is above all the most important trait in the Locksmith Security Profession. You must be Honest.

Honesty (Positive Ethics©) is the foundation of your business. If you can not be honest, then you are not a "Locksmith" Security oriented person. You are then dishonest.

If you are dishonest (Negative Ethics©), then you can not be trusted. If you can not be trusted, you are of no use in the "Locksmith" Security industry. You should seek a new line of work. Period.

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You should be able to walk in and out of a room full of scattered, uncounted dollar bills and never touch one dollar, let alone steal one. You be your own Judge. Positive Ethics©.

Be proud of yourself and others will also see it reflected in you.

Look up the word "Locksmith" in the "Locksmith" Security Dictionary©.

You can learn anything in the "Locksmith" Security industry you want to learn. You must apply yourself.

It is not difficult. There is so much to learn, as you do learn, you will get entranced and you will want to learn more.

"Locksmith" Security is a fascinating field dating back to before Christ (BC). In fact, the Egyptians utilized a Lock which was later used by Yale, re-discovering the Pin Tumbler system.

I have taken Investigative / Detective courses to help with my Locksmithing, Alarm, Security work.

Thus to help you the reader with your phrase enhancements. Many years of research and development were laid along with trial and error in order for you to have this material available to you in this format.

You need to be better than the other guy or gal.

You need to know how, and I will show you how.

How to make money \$\$\$

I found the "Locksmith" Security oriented person needs to know more than just Locksmithing.

The reason for this is, one day I was Re-Keying and Tightening up a premise after a robbery, I found facts and evidence that suggested an entry or entry method other than what the police had stated.

On several other occasions, we set Traps and apprehended the subjects.

Alarm installs, robberies and other "Locksmith" Security encounters, inspired me to take the Detective course I mentioned to you earlier.

Your Locksmithing interests may vary from being an auto repossessions person to working on Mercedes Side Winders, Opening Automobiles, Impressioning Keys or bidding on low voltage Electric Strike installations.

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Low Voltage is very important to learn as a Global Security Specialist©.

You will find yourself dealing with Electric Strikes, as well as other Low Voltage "Locksmith" Security needs, and you need to be prepared for all of the requests.

People will ask you as a "Locksmith" to work on Key Switches on their Alarm Panels.

Automobile or vehicle Kill Switches also use Low Voltage applications.

I found every "Locksmith" Security field was important to learn.

Go to the junk yards or parts departments and purchase Foreign Auto Locks to work on, if this field interests you.

I must make it perfectly clear, to become proficient you must practice, practice, practice.

You will get out of the "Locksmith" Security industry ten fold, to the effort you put in. All things take time, so it is your choice to give Locksmithing Security a chance.

Feel free to use the Master Locksmith Security Encyclopedia Set© Dictionary© when ever you need it.

I have designed the Dictionary© to be used in hand with the rest of the Encyclopedia Set.

You will find yourself using the Dictionary© for a long time to come.

This is an employment opportunity and should be viewed as such. It is an investment. Something which may be built upon to much greater heights. Building blocks. As a "Locksmith" Security person.

All things in this world require diligent work and effort as well as skill and even sometimes luck. You can make anything work for you as long as you apply yourself and put your best foot forward. Have confidence in yourself and remember, practice.

Global Security Specialists© are needed around the world.

See the phrase Global Security Specialists©.

If you would like to become a Global Security Specialist©, I encourage you to join. We need more honest individuals around the globe sharing Security in a Positive Ethics© manner.

The world is getting smaller and smaller every day and we need to stand together with honesty and Positive Ethics© contributions.

If you need information on G.S.S.

Please write us.

Global Security Specialists©

**The Master Locksmith Security Encyclopedia Set©
Locksmith Security Training Course Physical Security**

No matter what your race, religion, color, creed etcetera, male or female, it does not matter, you and your Locksmith/Security skills are needed.

A Positive Ethics© practicing Security individual. There are so many Locksmith Security fields that all you need to do is pick one and be proficient in it.

The more Locksmith Security fields you know, the more you are worth. Either working for someone else or working for yourself.

Employers in the Locksmith Security Industry who are looking for quality help would like someone who is experienced. It is hard to acquire experience without hands on training. This is where this course will aid you. This course will help you gain the experience to acquire work.

An employer is more apt to look at someone who has taken a home study course over someone who has not.

Those who have taken a home study course are showing they want to learn and improve themselves. They are showing they are Can Doers who do.

We will help you acquire a job if you would like. Simply have the employer call us and we will tell them about your indulgence in this course. Take this course with you and show them what you have studied and learned.

We have a lot of work to do, so let's get going.

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My Thanks

Although both my parents are deceased, I want to say Thank you to my parents for their helping and encouraging me with my "Locksmithing" / Security / Investigative work over the many, many years.

As well as teaching me hard work or earnest work is good for you and what ever you do; Do It Well, Do The Best You Can, And Be Honest. You Only Live Once.

Be a Man and a Gentlemen At All Times. Or Lady what ever the case.

I would like to say **Thank You** to George Clymer my Eighth Great Grand Father for giving me all he has given me and for being my mentor.

The following quote I acquired from a private Investigator and I would like to say **Thank you** to him for his instructions on being a better Investigator.

Ed C. helped me in my search for knowledge and encouraged me personally to write this program.

I hope he knows, it is he.

The ancient law-giver of Athens (Solon), (633-559 BC) was asked to name the essential ingredient of the ideal community. Every concerned citizen should remember these words.

**"When those who have not been injured
Become as indignant as those who have."**

I hope you (my reader) remember and refer to myself and my company as fair and honest.

Thank you for your patronage.

Good Luck !
Good Health !

and

**May you prosper !
John Clymer II**

The Study Area & Shop

To begin your Locksmith studying endeavor, you will need to find a quiet place to study and work. This place must be free of all noise and distractions.

Always keep your work area clean, organized, and orderly. The cleaner you keep your study and work area, the better your work performance will be.

<p>A Place For Everything & Everything In Its Place</p>
--

You will really appreciate the extra time you have taken when you need a tool or reference material, and it is conveniently located due to your careful pre-planning.

When studying, concentration is important, and distractions should be kept to a minimum.

People will laugh when you tell them that you are practicing Locksmithing. They did with me.

I believe that jealousy and envy played a large part. After all, you are actively doing something with your life.

I believe that most of the general populous are lazy and lack discipline.

A person who teaches themselves at home shows discipline, drive, and initiative. You are more apt to find job placement if that is your goal.

Practicing the Lessons

It is better to only practice one or two lessons a night and concentrate on them. Versus, cramming the entire course into ones brain in two nights. After reading a lesson and practicing with it, re-read the entire lesson again. Make sure that you understand it completely before moving on to the next lesson. After each lesson I would suggest acquiring the materials to practice that lesson. Then practice getting some first hand experience to apply what you have learned. Really implant the lesson in your mind.

The Basic Lock Shop Tool Lists

The tools in the following lists may be used in Domestic Lock, Domestic Automotive , and Foreign Automotive. Most tools are interchangeable as needed in the required locksmithing fields. In other words, the tools found in the non automotive list, such as the Rat Tail File (Pippin), may be used for automotive work as well. There is a difference between a Rat Tail File and a Pippin File. The Rat Tail File is round and tapers to a pointed tip. The Pippin File is shaped like a Pippin seed. That is to say, it is not round. One edge is round as it tapers to the other edge with a point, and then it tapers down to the tip.

The lists may sound silly, as though you knew you needed a particular tool or item. There are those who are reading this that have never been in business before, or may not have thought a particular tool important, thus I have listed those tools.

I made my own machinist chest from wood for my smaller tools, or you can purchase a machinists chest that is already made.

They are great with all their little draws and places for tools and things.

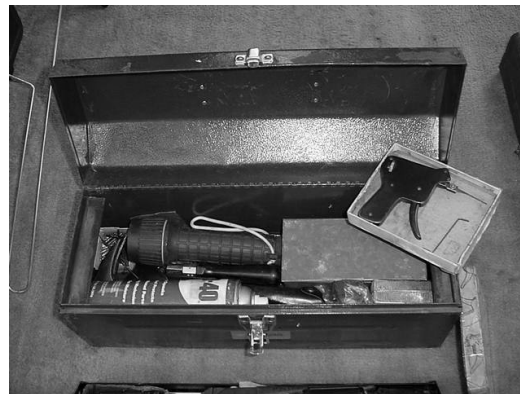
I labeled my drawers with a label gun that I find very handy.

A Lock shop may be a Store Front or Mobile operation, which ever you feel comfortable with.

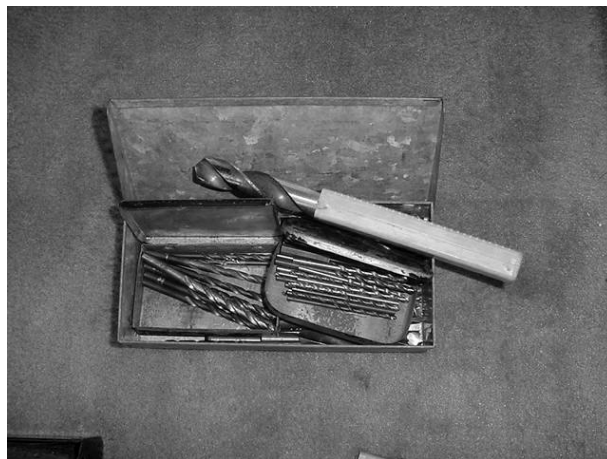
Basic Non Automotive Tools

- Awl Type Pick Tool
- Ball Peen Hammer, Small
- Bench Vise
- Broken Key Extractor
- Chisels, Small Metal Assorted Sizes / The Smaller The Better
- Cordless Drill
- Drill Bits Assorted Sizes / Several Of Each Size
- Flat Files. A file should only be used in one direction and on one type of material.
- Hacksaw
- Impressioning Glasses
- Key Blanks
- Key Decoder
- Key Machine / Different Types
- Key Rings, Give Away Key Rings.
- Kwik Set Removal Tool
- Measuring Tape
- Metal Punches Of Assorted Sizes
- Paper
- Pencil
- Picks And Dental Type Probes And Hooks
- Pick Gun
- Pick Set
- Pin Tumbler Tweezers
- Plug Follower Set / For Different Size Plugs
- Plug Spinner
- Professional Pin Kit For Domestic Locks For The Brands You Will Be Working On
- Round Rat Tail Files
- Safety Glasses
- Screw Drivers Of Assorted Sizes / Tiny Through Giant Size
- Scribe , Awl Type Pick Tool
- Shim Stock And Shim Stock Holder
- Space And Depth Keys
- Tool Box(s)
- Vise Grips, Small / Impressioning Pliers
- Warded Pick Set
- Water Pump Pliers
- Work Bench
- Work Bench With Adjustable Light

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Knob & Deadbolt Installation Tools

- 1" Chisel
- 1/2" Chisel
- 1/4" Chisel
- 2 1/8" Hole Saw
- 1" Hole Saw
- 15/16" Spade Bit
- Color Wax Sticks
- Drill, Sturdy For Hole Boring
- Hammer
- Measuring Tape
- Pencil
- Scribe , Awl Type Pick Tool
- Torpedo Level
- Tool Box

Automotive Tools

- Door Trim Removal Tool
- G.M. Key Decoder
- Key Blanks
- Magnet / Pencil Shaped
- Professional Pin & Wafer Kits For Each Vehicle You Will Be Working On.
- Snap Ring Removal Tool
- Space And Depth Keys
- Steering Wheel Puller With Assorted Sized Collars
- Steering Column Compression Tool
- Tool Boxes / One For Each American Auto / One For Each Foreign Auto
- Torx Driver Set

Code Books Are Always Needed

Office Supplies

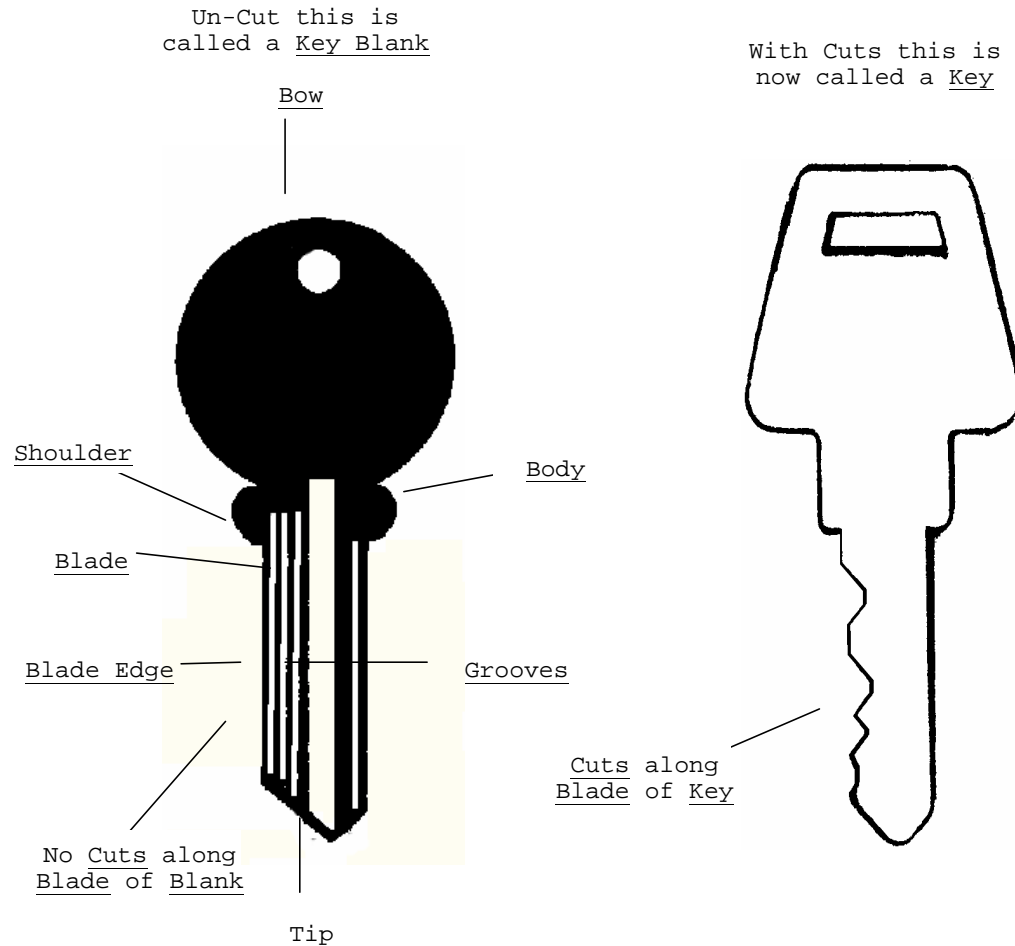
- Answering Machine Or Answering Service
- Billing Forms
- Book Cabinet
- Bulletin Board
- Calculator
- Calendar
- Calling Cards
- Clock
- Computer With Printer
- Diary / Daily
- Payment Reminder Stamps; Red Inked, "Past Due" etc...
- Envelopes
- File Cabinet
- File Folders W/ Tabs
- Magic Markers
- Note Book / To Do Book
- Letter Head
- Office Desk
- Paper
- Paper Clips
- Paper Shredder
- Past Due Stamp; Red Inked
- Pencils W/ Erasers
- Pens
- Rubber Bands
- Scissors
- Stapler
- Tacks
- Tape Recorder For Noting Ideas
- Telephone that Works
- Work Release Forms

These lists are only to get you started. You will indeed need, and find yourself purchasing a lot more tools and supplies.

Key Blanks, Keys and Grooves

We have all seen Keys and most of us carry a pocket full of them. We know that there are Cuts on the Key that give it a "Saw Tooth" appearance.

The "Saw" type Cuts obviously have something to do with the operation of the Lock and Key as a unit. Let's take a look and examine how the two work together to provide us with security.



The Shoulder of the Key is usually what stops the Key from sliding too far into the Keyway.

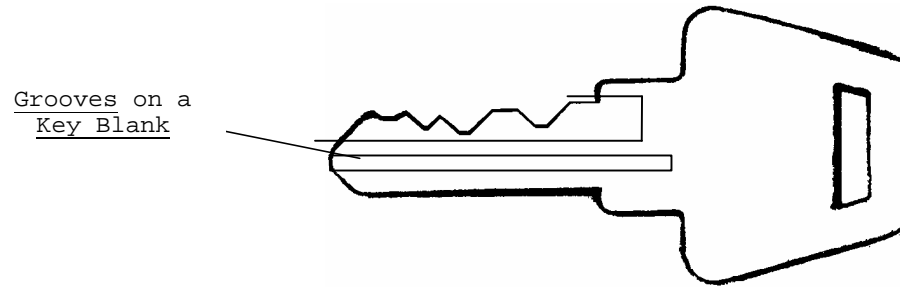
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We slide the Key into the Lock up to the Shoulder. If you slide a key into a lock, watch how the key is stopped from sliding all the way into the Lock.

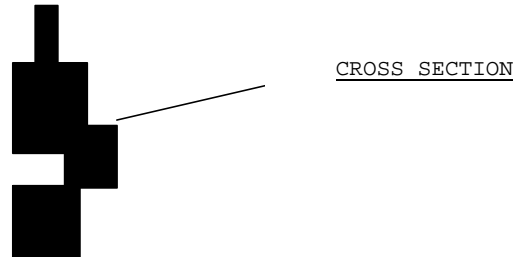
The Shoulder is usually where we measure our Cuts from.

The Grooves down the Key Blank are what make up its Keyway.

Keyways are all different.



If you look at your Keys on end, **straight on**, as though you were going to stick it in your eye, you will notice that your Keys' Keyways are all different. This makes up the shape of the Keyway.



Compare Grooves on different Keys.

Examine them. They are all different.

This is the reason one Key Blank, will not fit into the Keyway of another Manufacturers Lock.

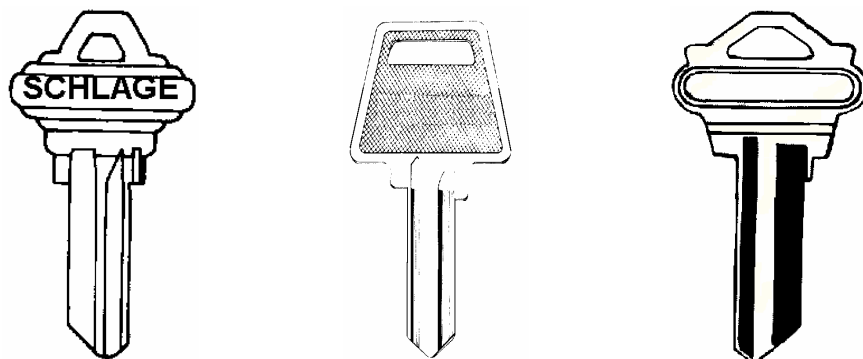
Your house Lock Key will not enter into your friends or neighbors house Lock. Your vehicle Key will not enter into your Pad Lock, etc...

If it does slide into the Keyway of another Manufacturers Lock, it is because the Locks have the same Keyway. The Locks Lands and Grooves are matched to the Keys. The Keys Lands and Grooves match those in the Lock.

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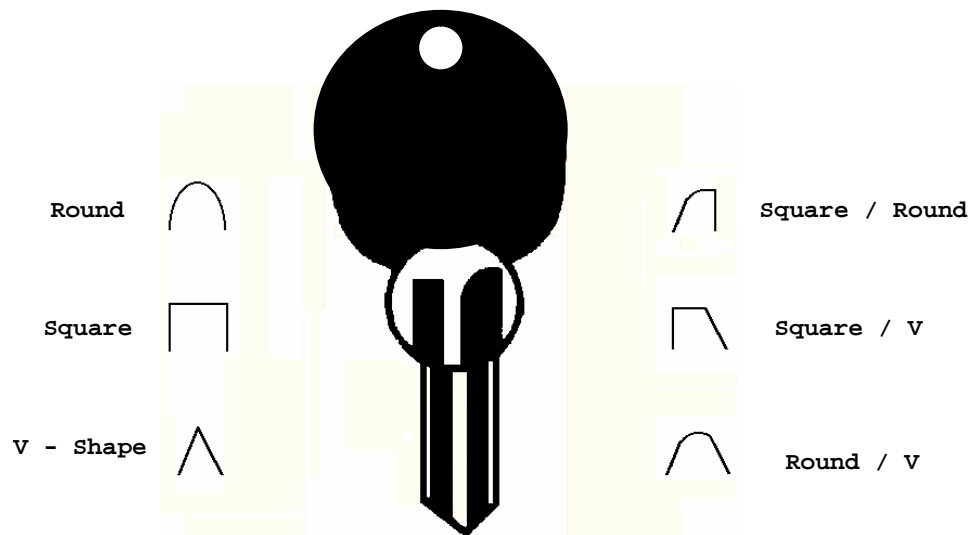
A Pad Lock Key that will operate a house Lock is obviously the same Keyway and are Keyed Alike.

Some Manufacturer's Keys Keyways will enter another Manufacturer's Lock, but not vise-versa.



The Grooves of the Key May be identified by the shape in which the Groove ends with, at the Bow of the Key Blank.

There are six basic Key Groove shapes.



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Combinations of these Groove shapes are what make up the Key Blanks Keyway. That is what makes each Key unique along with the Pinning Combination. The combinations of Grooves and Key lengths.

To find the correct Key Blank for a particular Lock is the trick. Either skill and or past experience will guide you, or a reliable source of information is needed.

This is where a Key Blank Catalogue is needed.

There are literally thousands of Key Blanks available. Many Key Blank Manufacturers use abbreviations to identify the particular Blank that will work with a particular Manufacturer's Lock.

A Lock Manufacturer does not necessarily Manufacture Key Blanks and vise versa.

A Key Blank Manufacturer does not necessarily Manufacture Locks.

Abbreviations of Lock Manufacturers stamped on the Key Bow may look similar to;

AR1 = Arrow Lock.

KW1 = KwikSet Lock.

SC1 = Schlage

WK1 = WestLock

There are many Key abbreviations.

CO1 = Corbin / Y1 = Yale / SL1 = Slaymaker.

Many times the basic initials are used with the series number of the Key.

SC1 = Schlage's first Key. SC2 = Schlage's second Key. SC9 = Schlage's ninth Key. Etcetera.

Again this is where a Key Blank Catalogue is needed. In order to see what Key Blank will work what Lock, and that the Keys may be cross referenced.

A KwikSet Key or Blank will slide into some Dexter and Arrow Locks.

An Arrow Key or Key Blank will not slide into a KwikSet Lock.

This is because the KwikSet Blank has fewer Lands or Grooves along the Blade.

The Keyways are similar and thus it will pass an Arrow Lock. But because the Lands are different on the AR1 Blank (it has a bigger Land) it will not slide into the KwikSet Lock.

Experience will dictate what Blanks will work and what will not work.

It is really not as complicated as it sounds.

As with anything else, practice, practice, practice.

Acquire different Key catalogues, review them, and become familiar with them.

Purchase and scavenge any Locks and or loose Keys if you can.

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Look at Keys, study Keys, Read Keys, Cut Keys, dissect Keys etc...
And have fun.

Also, as you walk into a building, look at the Hardware, Knobs,
rails, hinges etcetera. You should start to identify and recognize
the different brands of hardware offered and the Locks and Keyways.

Sometimes you can create your own Key Blanks. This is done by filing
Grooves and changing the Keyway of a Manufacturer's Blank.

I have filed Grooves in Key Blanks that did not previously exist
before.

Case History:

A Client came to me with an imported sports car. A dozen
dealerships, "Locksmiths," and mechanics could not create Keys for
the imported cars four Locking hub caps. The client needed the hub
caps Keyed Alike, "KA" all around.

He had been trying for over a year to get a key for the locking hub
caps and stated that he was due for a flat tire.

I tried to fit dozens of Blanks to the Keyway.

I tried to insert several more Blanks into the Keyway, but this was
to no avail. I found a Blank that seemed like it would fit. However,
the Lock had a Land that the Keyway did not have a Groove for.

Using a Rat File I then created another Groove in the Key Blank so
that its original Locks Lands and my Groove were very close to the
Locking hub caps. It appeared that the Blank might slide into the
Keyway with some slight modifications.

After I fine tuned the Blade by filing down the sides of the Blade
in order to make it slightly thinner, it slid into the Keyway. I then
Impressed the Key, fine tuned this, and worked all four hubcaps.
The client then asked for two more duplicate Keys.

The second and third Key were fairly quick.

You bet I charged him. Big \$\$\$\$. And on a Saturday and in the dark
night. By candle light (flashlight).

<p style="text-align: center;">Every Locksmith is either part machinist or knows one.</p>
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Tip:

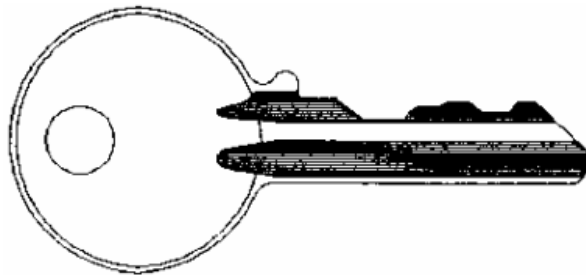
If the Key slides down the Keyway, but does not turn, one would presume the Key is not Cut (Combinated) correctly to this particular Lock. The Key is not Bitted correctly.

If the Client insists this is the correct Key, I might then spray the Lock with WD40, clamp a small vise grip to my Key as in the Impressioning technique. Then gently wiggle the Key up and down and back and forth in the Lock and try to free up any sticking parts.

Only practice will dictate how much turning pressure to apply. The Lock may have a piece of grit in it that a little extra turning force along with some lubrication might dislodge.

Do not break off the Blade of the Key in the Keyway.

You should now have a clear understanding of why a Key is shaped with Lands and Grooves and what makes up a Keys Keyway.



Spaces

The Cuts that are along the Blade of the Key are spaced a certain distance from each other and from the Shoulder of the Key.

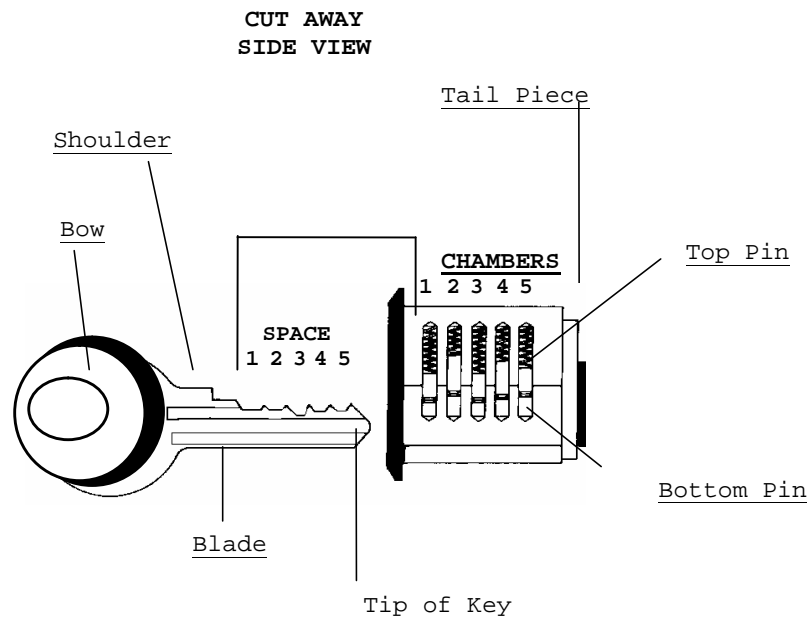
According to Manufacturer's specifications for the particular Lock that you are working with.

Each Cut along the Key Blade falls into a Chamber Space of the Lock.

When a Key is cut it is said to have been Bitted. The Bittings of the Key are...

One might be asked, what is the Bitting Array? In other words, what is the arraignment of working cuts on a correctly cut Key?

The Key in our diagram below has five cuts. Each Cut (Space) on the Key represents a Pin Chamber in the Lock. Thus each Pin Chamber in the Lock = 1 Space on the Key.



This particular Key is Read Bow To Tip. This is a five Cut Key (five Spaces) entering a Five Pin Lock (five Pin Chambers).

The number 1 Space is next to the Shoulder Cut. The number 5 Space is the Tip Cut.

Notice the line leading from the #1 Cut on the Key to the #1 Chamber of the Lock.

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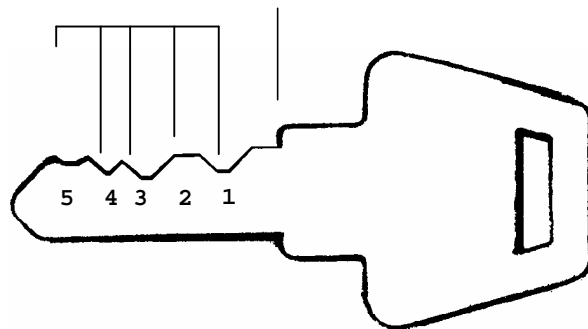
If the Key were inserted into the Lock, the Number 1 Space on the Key would be directly under the number 1 Chamber of the Lock. The Number 2 Space on the Key would be directly under the number 2 Chamber of the Lock, etc.

Plug removed from Lock Shell.
Aerial View looking Down on Lock Plug.



Pin Chambers
Correspond to
Spaces
on Key

Shoulder of Key



The Key is turned
sideways in this
picture
for better viewing

Each Pin Chamber in the Lock equals one Space on the Key.
Each Space that is Cut on the Key must line up with its
corresponding Pin Chamber in the Lock.

If the Key were to be read Bow to Tip, the first Space (#1 Space) on
the Key (next to the Shoulder) would have the same corresponding Pin
Chamber in the Lock.

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The corresponding Pin Chamber in this case would be the first Chamber from where the Shoulder of the Key rests. This resting place for the Shoulder of the Key is the face of the Lock Plug.

The number one Space on the Key would then correspond to the first Pin Chamber in from the Face of the Lock.

The tip of the Key would be at the rear of the Lock Plug.

The Key's number 5 Space would be the last Chamber in the Plug. If it were a Five Pin Lock.

If the Lock were a six Pin Lock the Key would be longer, and the tip of the six Cut Key would contain the sixth Cut for the sixth Chamber Space.

Some Locks are Five Pin (referring to how many Pin Chambers there are), some Locks are Six Pin and some have more Pins. Some Locks have fewer Pins.

The Spaces are usually all evenly spaced down the Blade of the Key except for some Foreign Automobile.

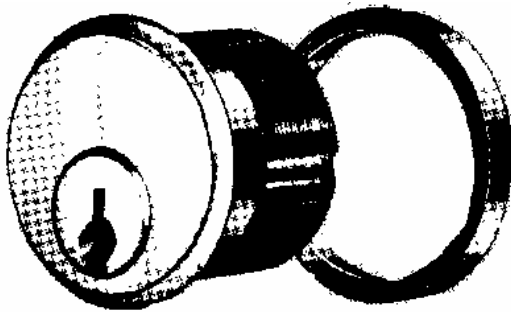
Some Foreign Automobile Locks have the Spaces different distances apart as well as being Read from Tip to Bow.

The Lock and Plug

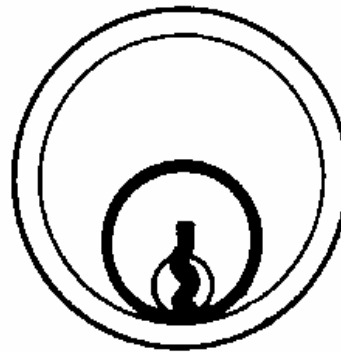
The first Lock that we will approach is a Mortise Cylinder. This is the type of Lock one would find on an Aluminum Store Front Door. That is a typical Store Front, say at a Shopping Mall.

Most Locks operate on the same principals. Only the actual Lock Casing (Shell) is different.

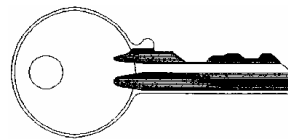
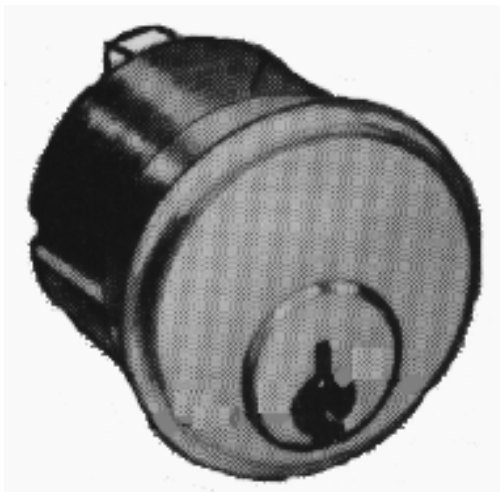
Threaded Mortise Cylinder and Spacer Ring



Mortise Cylinder,
constructed of
solid brass stock.



Mortise Cylinder, constructed of
solid brass stock.

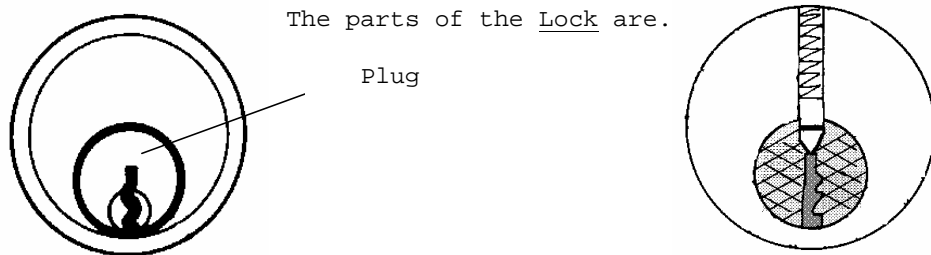


This is a Basic Five Pin Lock

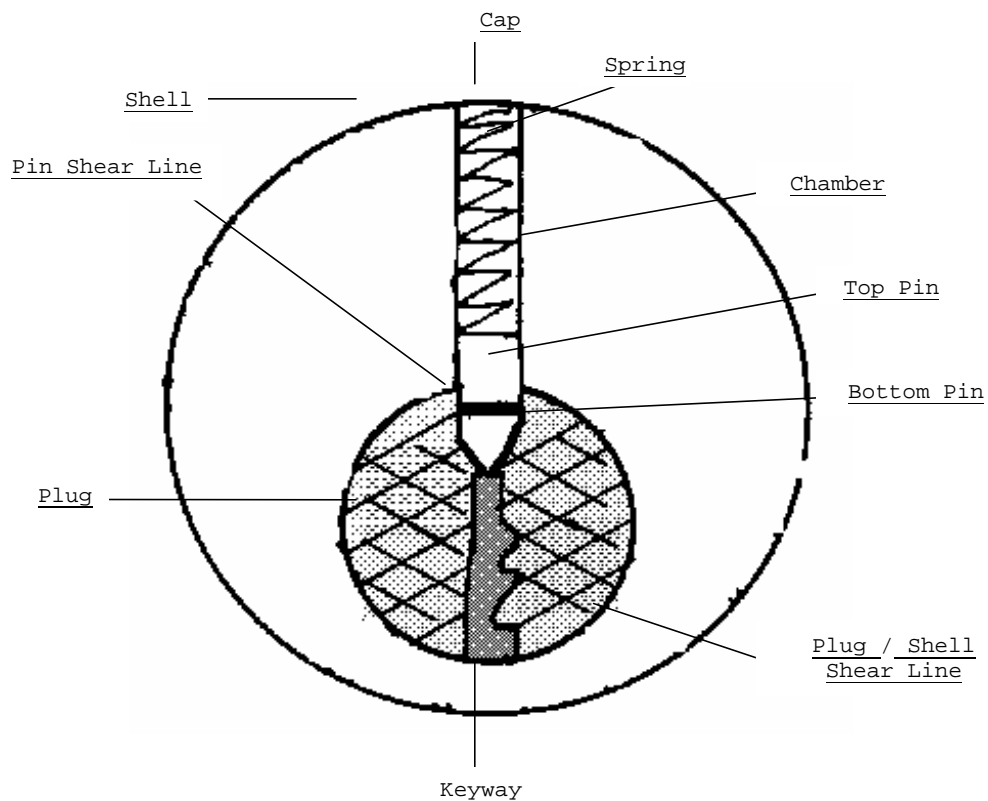
This is a Mortise Cylinder, constructed of solid brass stock.

View from front of Lock STRAIGHT ON.

The parts of the Lock are.



Face of Lock Removed



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No Key has been inserted into the Lock above. Notice that the Top Pin is driven down into the Plug blocking the Shear Line and thus keeping the Plug from turning. It is basically one smaller cylinder turning inside a larger cylinder when the correct key is inserted and turned.

Without the correct Key, the Pin prohibits the smaller cylinder from turning.

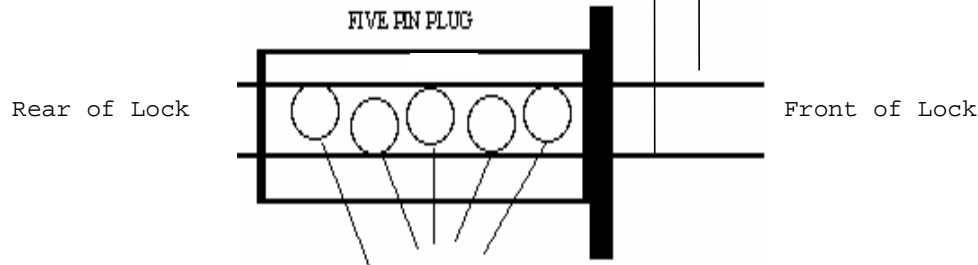
AERIAL VIEW

The Plug removed from Lock, turned sideways,
and viewed from the top

Five Pin Lock Plug

A "Cap" would cover
each Pin Chamber

(lines represent
true parallel)



Chambers are dramatized not in line
however: they are in line.

The Pin Chambers theoretically are in line and are straight.
To the naked eye, the chambers are drilled straight in a line.

To stay within the realm of Basic "Locksmithing," we will be working with a Five Pin Lock. It is not Master Pinned or IC / Interchangeable Core. These are advanced techniques of Locksmithing.

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You will notice that the drilled Chambers are not actually in line. They are off of alignment a slight bit.

Each time the lock Manufacturer's drill, drills a new Pin Chamber, the drill is off of alignment a small amount.

This slight variance in hole alignment is greatly advantageous when attempting to Pick a Lock.

Because of the imperfections of drilling the Pin Chambers during Manufacturing, this imperfection is what allows us to Pick the Lock.

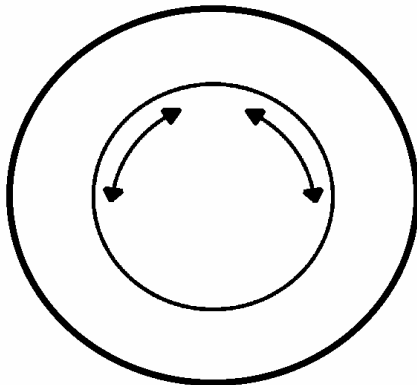
Binding the Pins against their Chamber walls by the use of a Tension Wrench.

Technically the lock consists of, one smaller cylinder turning inside another larger cylinder. **Picture 1.**

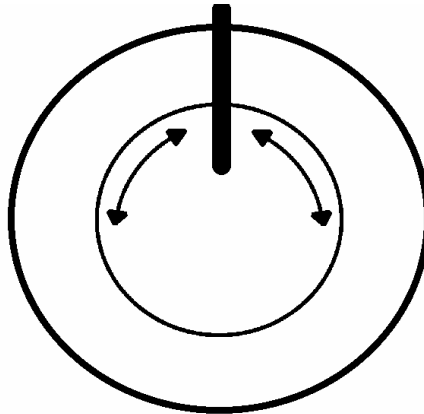
If we were to drill a hole through the larger outside cylinder and penetrate the inner cylinder and then insert a pin this would prohibit the inside cylinder from turning inside the larger cylinder.

Picture 2.

Picture 1



Picture 2

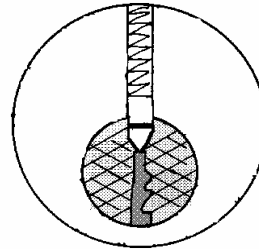
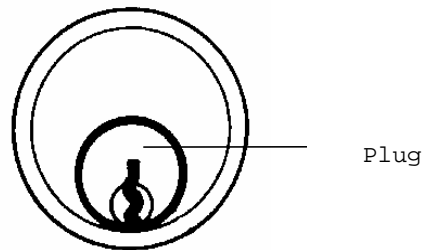


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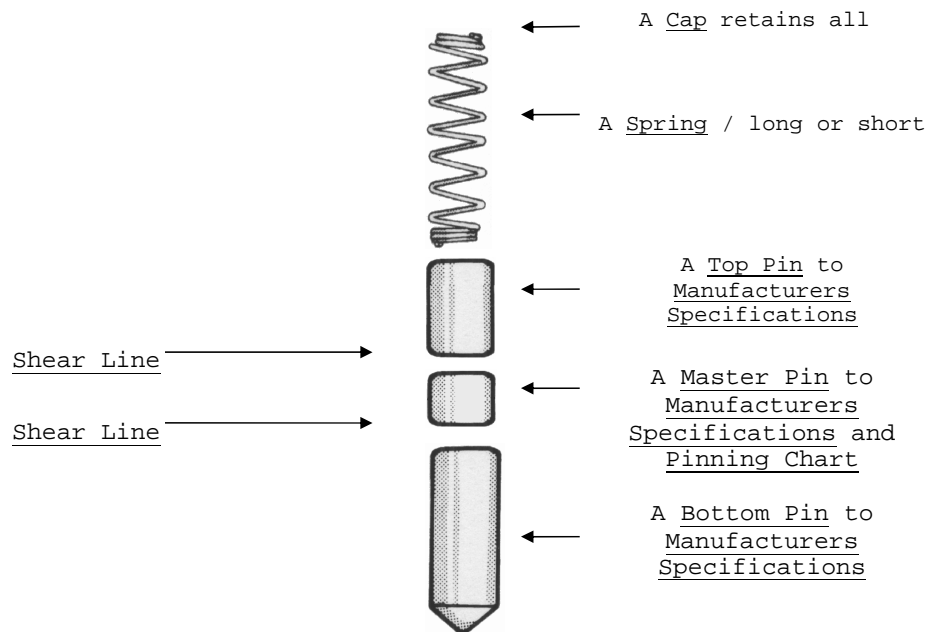
This is a Mortise Cylinder, constructed of solid brass stock.
View from front of Lock STRAIGHT ON.

The parts of the Lock are.

Face of Lock REMOVED



Below is a view of a Pin Stack. It is the same as in our Lock pictured above, except it has exploded view for clarity and a Master Pin has been added.



* Note - the addition of the Master Pin creates another Shear Line and thus greater promotes the possibility of Picking the Lock.

Pin Stacks and Caps

The Pins, when together in a Pin Chamber form a "Stack." They may be referred to as a Pin Stack.

The Pin Stack and Spring are enclosed in a tube type cylinder referred to as a Chamber or Pin Chamber.

The Pin Stack and Spring are held in the Chamber of the Shell by a Cap. A Cap or Strip Cap would cover each Pin Chamber.

Most Locks use only one large Strip Cap that covers all of the Chambers at one time.

Some Locks use a simple clip over the top of the Shell type Strip Cap. It will clip off and on in seconds. If the Clip on Cap appears to be a bit loose, simply squeeze the sides together so that the Clip on Cap holds the Shell more securely.

Other Locks such as Arrow (brand) use a long flat piece of strip metal that has been slid down a track and "Peened" or "Staked" on.

This type of Strip Cap is removed by carefully removing the Peening with a very small chisel and Ball Peen type hammer and then carefully driving the Strip Cap down the track and off the back of the Shell with a Ball Peen Hammer and Flat Bottom Punch.

Do not bend the Strip Cap of flat steel.

When Replacing the Flat Steel Strip Cap, the Springs of each Chamber that protrude above the Shell must be watched and guided so they do not bind or damage the Springs as the Strip cap is slid back on.

The cap then must be "Re-Staked" or "Peened" back on. Technique, patience and practice are the rules here.

Do not bend the Strip Cap of flat steel. If the Flat Steel is bent, I would suggest removing the piece of flat strip steel and gently hammering it flat with the Ball peen hammer on your vice. Do not flatten it too much or you will make it wider and it will not fit in the Shell track.

Some Locks use individual Caps for each Cylinder / Pin Chamber that are driven slightly into the top of each Pin Chamber. Special tools are required for installation and disassembly of this type of Cap.

An example of Locks that would use this type of Cap would be Best Interchangeable Core, Falcon Interchangeable Core, / Arrow etc... "IC" Interchangeable Core. These techniques for Advanced Locksmithing.

The Locks that may use the phrase Interchangeable Core, could be made into an occupation unto itself.

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Some "Locksmiths" only perform Master Keying and or Interchangeable Core work. Examples are institutions of learning / libraries / jewelry stores / hospitals... Are all possible users of Interchangeable Core and or Master Key Systems.

Great lengths of study may go into this field alone.

Some "Locksmiths" only perform Master Keying as their sole income. Re-Keying hotels, motels, industrial, and residential applications.

I found that I had to know and be able to perform all phases of "Locksmithing" / Security.

I urge you to read and or view all of the phrases in the
Master "Locksmith" Security Encyclopedia Set© Dictionary©.

This is a real Mortise Cylinder.
The Lock Face has been cut away in our picture below.

Note the Top Pin being driven down by the Spring thus Blocking the Shear Line.



Pin Increments

There are different types of Pins.

The different Pins include; Bottom Pins, Top Pins, Master Pins, Mushroom Pins, Serrated Pins, and Spool Pins.

The Pins come in either; .003" increment or .005" increment.

This is the measurement from one Pin Depth to the next Pin Depth in a Pinning Kit.

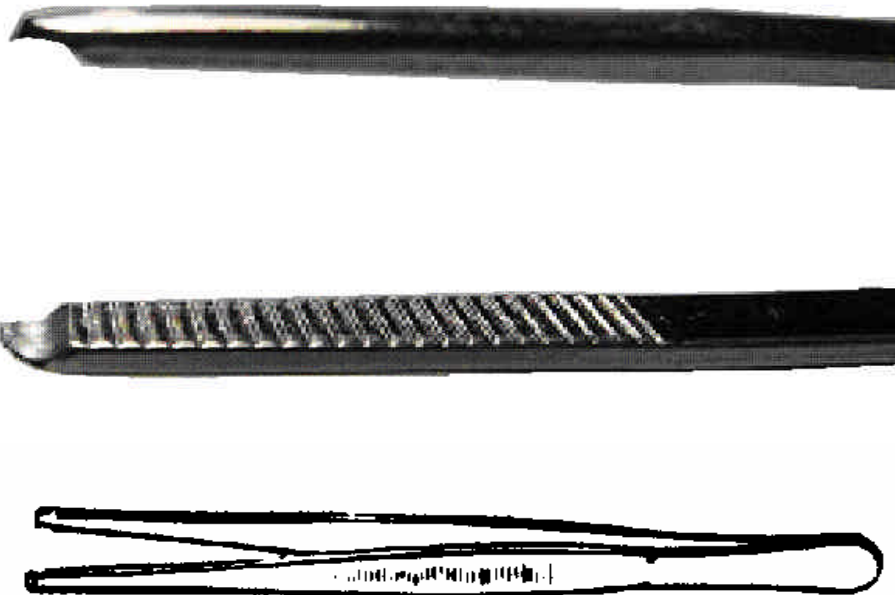
Example:

The increment increase between a .210" Bottom Pin and the next Bottom Pin (increasing in scale) in the .003" Pinning Kit would be an increment increase of .003". Thus, The next Depth would be .213" Bottom Pin. The next .216" Bottom Pin, .219" Bottom Pin, .222" Bottom Pin, .225" Bottom Pin, etc...

The increase between Depths is .003". The Pins' Diameter is .115".

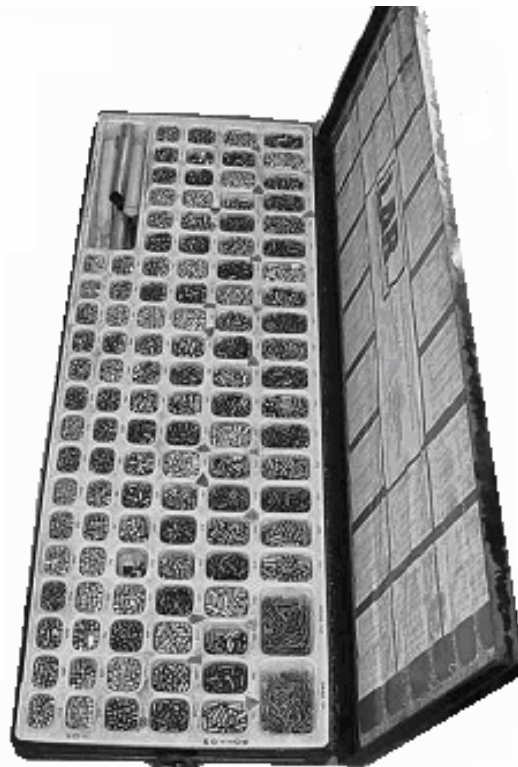
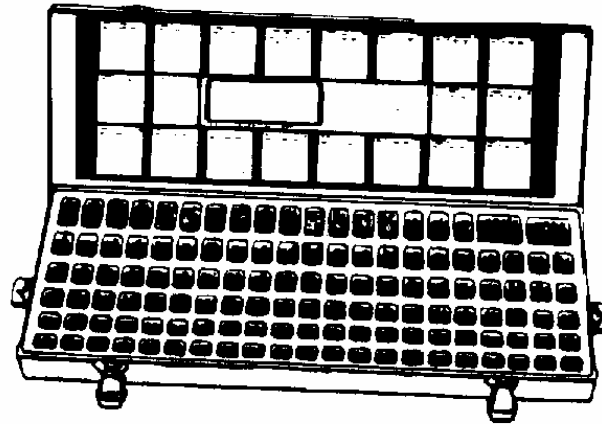
The .005" increment Pinning kit has increased measurements of .005" between Depths. I prefer .003" increment. The increments are less between the Depths, which allows greater flexibility when Pinning up a Cylinder. It allows for mistakes in the Manufacture of the Lock. You are never off by more than .001" (one thousandths of an inch) of an inch!

Special knurled tip Tweezers for picking up and holding Pins.



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This is a Large Pin Kit
.003 or .005 Increments are available



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.003 Increment Pin Storage. Pin Packages are arranged in order by number and stored in a card board box.

The newer type vials may be seen to the right. I prefer to use my numerical envelope procedure.



Maximum Adjacent Cuts. MACS.

Each Manufacturer has their own Spaces and Depths. One of the Manufacturers specifications are Maximum Adjacent Cuts. MACS.

This is the allowable Depth of Cut that may be adjacent to another Depth of Cut on a Key.

Example:

Let us say the MACS for this Key were 4.

This would mean that a 2 Depth Cut could be next to a;
0 depth cut, 1 depth cut, 2 depth cut, 3 depth cut, 4 depth cut, 5
depth Cut and a 6 depth cut.

Each of these Cuts are only four Depths difference from the two (2)
depth cut. These are acceptable.

However a;

7 depth cut, 8 depth Cut and a 9 depth Cut next to a 2 depth Cut are
more than 4 Depths difference and are unacceptable next to a #2 Depth
Cut.

It may be very hard to slide the Key in and pull it out of the
Keyway.

It is possible that such a drastic difference between Cuts could
retain the Key and keep you from pulling it out of the Keyway or
inserting it.

The Pins would retain the Key. The Bottom Pins would not ride
smoothly up and down on the Cuts of the Key.

These rules would be adhered to for each Depth of Cut.

This is what makes each Lock unique by having its own Combination
along with its own Keyway as well as Spaces and Depths of Cut.

Bottom Pins, the Cut Key, and the Depth of Cut

Bottom Pins are at the bottom of the Pin Stack. Bottom Pins are the
Pins that contact the Key in the Keyway. The Bottom Pins ride up and
down and in and out of each of the Keys Cuts as the Cut Key slides in
and out of the Keyway.

The Bottom Pin and the Depth of Cut are the same in Basic
Locksmithing©.

A Cut in the Key represents a certain Depth. The Depths and Spaces
on your average Domestic Key are five Spaces and nine Depths.

Depths 0 thru 9. (0) is the Shallowest Cut to 9 being the deepest
cut.

Depths (Depths of Cut on the Key) that are Cut in the Blank along
the Blade Edge of the Key represent directly the length of the
corresponding Bottom Pin that will rest in the Cut off the Key.

#6 Depth of Cut = #6 Bottom Pin.

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Of course this is complying with the Manufacturers recommended Pinning Chart.

All keys have Spaces and Depths of cut.

An Arrow (brand) Lock would use the Arrow Manufacturer's recommended Pinning Chart.

A Kwikset Lock would use the Kwikset Manufacturer's recommended Pinning Chart.

#6 Depth of Cut on our Key = a #6 Bottom Pin to that Manufacturer's specifications.

#2 Depth of Cut on our Key = a #2 Bottom Pin to that Manufacturer's specifications.

Do not confuse Depth of Cut with Spaces.

The Bottom Pins rounded nose sits in the Cut of the Key.

The Bottom Pins flat smooth end being flush with the Plug Surface creating the Shear Line.

A Key that is cut to Code will have its' Cuts dictated by the Code.

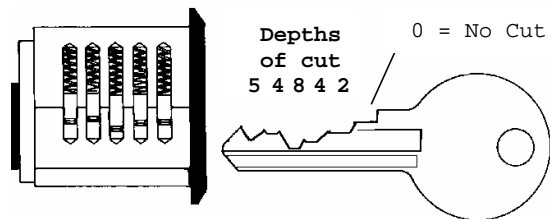
The code represents a certain number that is specific.

Where as a Lock that is to be Re-Keyed may have the corresponding Key Cut to a random Bitting.

Any numbers may be chosen for the Depths Of Cut in each Space as long as it complies to the Manufacturers Maximum Adjacent Cuts. MACS.

When Keying Locks Alike KA, one would specifically Cut each Key to the same Bitting.

The Depths for this cut Key may be
Read as 24845



Depth of Cut

The Bottom Pins are different sizes (lengths). Some are shorter and some are longer.

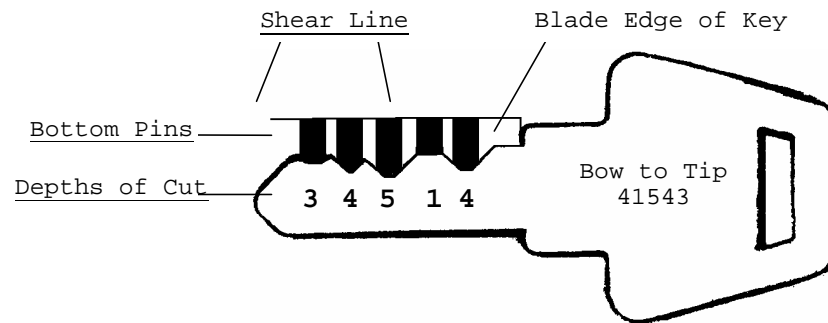
Some shallow Depth Cuts appear on the Cut Key and some deeper Depth Cuts, depending on the size of the Bottom Pin to be used.

To make things easier on yourself always hold the Bow in your left hand with the Tip of the Key pointing to the Right. In this way the Cuts are Read Left to right, Bow to Tip.

For discussion, the Key is held backward in our picture below, and must be read right to left.

The Cuts are still read the same way from Bow to Tip.

Notice how all of the Bottom Pins come to the same Shear Line at the top of the Plug when the correct Cut Combined Key (Bitted Key) is inserted and the correct Bottom Pins are used.



The correct Bottom Pins have been chosen to correspond with the Depth of Cuts on the Key.

Bringing them all flush to the top of the Plug.

Usually, the Cuts on the Key are Read From Bow To Tip of the Key / except for IC Core (Interchangeable Core) and some Foreign Auto and Motorcycle Keys.

To Read A Key, means to, look at the Key and try to judge what the Depth of Cuts are in each of the Spaces.

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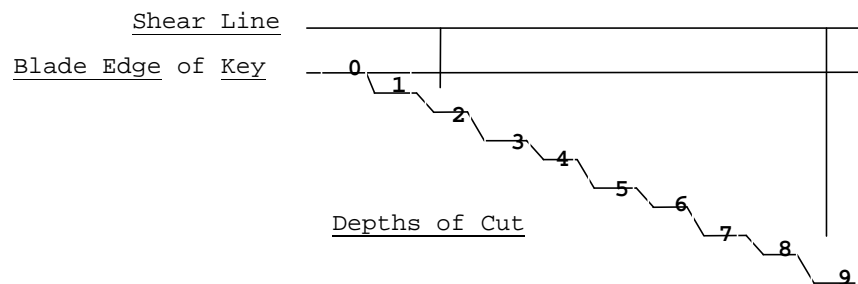
Not all Manufacturer's Depth of Cut are 0-9, some Manufacturers only have five Depths of Cut or seven Depths of Cut, etc.

We are going to use the Depth of Cut from 0-9 for our discussion and Spaces 1-5 from Bow to Tip.

A (0) Cut would be read as a **NO Cut**. This would be the Blade Edge of the Key without any Cut or a slight nick, and a (9) Cut would be the deepest Cut. A zero (0) cut utilizes a "0" pin.

The Depth of Cut may be measured from the bottom of any individual cut (The Root of the Key) to the Bottom of the Key using a Micrometer.

The Depths of Cut would appear as in this diagram. You can see how a 9 Depth of Cut would need a longer Bottom Pin to reach the Shear Line than, let us say a 2 Depth of Cut.



A Key being Cut to the Code of **6 8 4 5 1** (Bow to Tip) would have Pin Stacks consisting of the following Pins. Bow to Tip.

And the corresponding Key Cuts Bow To Tip.

<u>Top Pins</u>	<u>Bow to Tip</u>				
	Medium Top	Short Top	Long Top	Medium Top	Long Top
<u>Bottom Pins</u>	6	8	4	5	1
<u>Depth of Cuts of the Key</u>	6	8	4	5	1

Read Bow to Tip of Key This would be the correct Combination of Cuts and Pins.

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The Space between the Top Pins and Bottom Pins is called the Shear Line.

The Space between the Plug and Shell is called the Shear Line.

This is where the two pieces have a Shear effect.

It is when the two Shear Lines meet, the turning of the Plug is possible.

The correct Combination is getting all of the Pin Chambers Pin Stacks to the correct Shear Line at the same time. If one Cut is wrong on the Key, either too deep or too shallow, then that Pin Stack will not come to the Shear Line and the Plug will not turn.

Normally, with out a Key in the Keyway, all of the Top Pins are driven down past their Shear Lines , Locking the Plug.

Only the correct Depth of Cut for that Pin Stack will bring them to their correct Shear Line.

The average Lock that one encounters, usually has 9 Depths of Cut and 5 Spaces.

A Lock with 5 Spaces and 9 Depths of Cut could have as may as 55,000 possible different Combinations.

So you can see it is almost impossible for two people to have the same operating Key, unless they bought the Locks or had them Re-Keyed at the same time.

If all five cuts on the Key were worn and or all five Pin Chambers in the Lock were worn, it is possible that the Key could operate as many as a dozen Locks or more. Also remember that just as many Keys could operate a worn Lock.

The Key Depths are worn on the Key to 1/2 Depths.

For instance a 2 depth is worn to a 2 1/2 Depth this Cut would possibly then operate a 2 cut, or a 3 cut.

That is how we use Try Out Keys. They are Cut between Depths using certain Combinations of Cuts.

The Tryout Key or Jiggle Key is then inserted into the Keyway and wiggled up and down as it is turned.

If it turns it may be close, but not necessarily correct. Now you must decide what the true cuts are.

Fact: Houdini the magician was a "LOCKSMITH"

Pinning Kits

Top Pins and Bottom Pins are sized to different lengths.

For instance Bottom Pins; .216", .219", .222", .225" (all .003" increments) etc... these are equal to a particular Depth of Cut and should be used within the Manufacturers recommended specifications.

Most Pinning Kits have a Pinning Chart affixed inside the lid with some Lock Manufacturer's specifications to use. KwikSet, Arrow, Schlage, and Yale are a few of the many Lock Manufacturers in today's Locksmith Security Industry. The Pinning Chart clearly lists the correct size Pin to use with each Depth of Cut on the Key.

Example:

If one had Cut a Key to the Depths of **5 5 3 2 6** B-T (Bow to Tip and adhering to the MACS) and this Key was a Schlage Key, they would refer to the Pinning Chart inside the Pinning Kit for the Schlage Manufacturer's Pinning Specifications.

Schlage .003" MAC's 4			
Cut	Bottom Pin	MASTER Pin	TOP Pin
0 / .335	.165		
1 / .320	.180		
2 / .305	.195	.030	.237
3 / .290	.210	.045	
4 / .275	.225	.060	
5 / .260	.240	.075	.200
6 / .245	.255	.090	
7 / .230	.270	.105	
8 / .215	.285	.120	.165
9 / .200	.300	.135	

If they were Reading the Key **5 5 3 2 5** from Bow to Tip, the **first number 5** would represent the First Cut on the Key.

According to our chart above, the Depth of Cut is .260", the Bottom Pin we would use to match this Depth of Cut would be a .240", (No Master Pin), and our Top Pin would be a .200".

Our **second number 5** would represent the second Cut on the Key.

According to our chart above, the Depth of Cut is .260", the Bottom Pin we would use to match this Depth of Cut would be a .240", (No Master Pin), and our Top Pin would be a .200".

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Our **third number 3** would represent the third Cut on the Key.

According to our chart above, the Depth of Cut is .290", the Bottom Pin we would use to match this Depth of Cut would be a .210", (No Master Pin), and our Top Pin would be a .200".

Our **fourth number 2** would represent the fourth Cut on the Key.

According to our chart below, the Depth of Cut is .305", the Bottom Pin we would use to match this Depth of Cut would be a .195", (No Master Pin), and our Top Pin would be a .200".

Our Key Reads 5 5 3 2 6 B-T

Schlage .003" MAC's 4			
Cut	Bottom Pin	MASTER Pin	TOP Pin
0 / .335	.165		
1 / .320	.180		
2 / .305	.195	.030	.237
3 / .290	.210	.045	
4 / .275	.225	.060	
5 / .260	.240	.075	.200
6 / .245	.255	.090	
7 / .230	.270	.105	
8 / .215	.285	.120	.165
9 / .200	.300	.135	

Our **fifth number 6** would represent the fifth Cut on the Key.

According to our chart above, the Depth of Cut is .245", the Bottom Pin we would use to match this Depth of Cut would be a .255", (No Master Pin), and our Top Pin would be a .200".

We would first insert our Cut Key into the Plug.

We would then drop the Bottom Pins .240", .240", .210", .195", .255" into each of the perspective Pin Chambers in our Plug.

With our Key still inserted, the Pins should come flush to the top of the Plug.

There are large Pinning Kits available that have many Manufacturer's Pin sizes in them along with Manufacturer's recommended Pinning Charts and specifications.

Single Manufacturer's Pinning Kits are also available. This type of Pinning Kit is designed to work on one type of Lock.

There are also Mini Multi Manufacturers Pinning Kits available.

Again it is preference as to the pinning kit you use. I suggest a large .003 pinning kit to start.

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The small Mini Multi Manufacturers Pinning Kit is good for a quick trip to an out of the way work site.

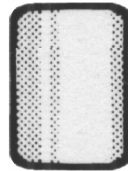
It has no Top Pins. Flip the bottoms upside down to make Top Pins.
He Round Point up toward the Spring).

There are no Follower, Tweezers or other tools. And only a few Pins per pocket. The large pinning kits usually come with a couple of tools and many Pins in each pocket.

Top Pins

Top Pins may be referred to as Drivers or Rollers. A Top Pin is at the top of the Pin Stack.

A Top Pin that is too long resting on top of a Pin Stack that is also long, may not allow a Key to be inserted into the Keyway.



Example:

Using our Schlage Pinning Chart above, if we had a **9** Cut that used a Bottom Pin of .300" and a Top Pin of .165" this would total the correct Pin Stack height. Now, if we did not Re-Pin the Top Pin and the previous Pin Stack height utilized a .237" Top Pin, and let's throw in a .135" Master Pin which still remained in the upper Pin Chamber with the over sized .237" Top Pin, we would be Over Stacked. To compound to this Over Stacking, we try to insert a Key with shallow Cuts. There just is not enough room for all of the materials.

As the shallow Cut Key is inserted into the Keyway, the Key contacts and lifts the Bottom Pin.

The Bottom Pin is being moved upward by the Key and the Keys' shallow Cuts, as it does so, it is pushing up the Top Pin.

As the Top Pin is being pushed up by the Bottom Pin and the Key, resistance is felt due to the Spring in the top of the Pin Chamber pushing down.

Remember there is a Cap holding it all inside the Cylinder or Pin Chamber. If the Pin Stack has been Pinned incorrectly, a Key other than the correct operating Key, may have trouble when inserted into the Keyway.

The Top Pin being too long will have no room in the Chamber to be pushed up into and will prohibit the Key from being inserted into the Keyway. Pin Stack Height is very important.

If the Pin Chamber has a long Bottom Pin, it should contain a short Top Pin. If it has a short Bottom Pin, it should have a long Top Pin. There are Long Springs and Short Springs offered in the Pinning Kits. The Length of the Spring should also be a consideration and some Pinning Kits will suggest which Springs to use.

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Specialty Pins

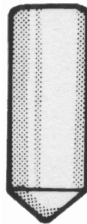
Mushroom Pins

Mushroom Pins are shaped as the name indicates, like a mushroom. The Mushroom Pins are used in replacement of the Top Pins. When some one attempts to Pick the Lock, the Mushroom Pins sway from side to side causing difficulty in the Picking process. The sway or rocking gives one the false sense of binding during the Picking and Impressioning process.

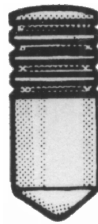
Spool Pins

Spool Pins are shaped like thread spools. They are shaped like the letter "I". These also tend to hinder the Picking and Impressioning processes. The Spool Pin sways from side to side and tends to bind against the Chamber wall giving false binding during Picking and Impressioning processes. They are also used in place of Top Pins.

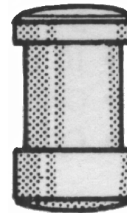
Standard Pin .003



Serrated Pin



Spool Pin



Both Mushroom Pins and Spool Pins are available only in Manufacturer's specifications.

You may replace the Top Pins with Pick Resistant Pins. This is usually done when a person feels additional Security measures are needed.

These Pick Resistant Pins tend to keep a Lock Pick Resistant. Notice , I said Pick Resistant. Not proof.

As soon as you say proof, "Locksmiths" around the globe will challenge you. You Will Loose.

To say you can't get in, or it can not be opened should be a challenge to any "Locksmith."

Master Keying and Master Pins

I did not want to approach Master Keying at this particular time. It is Advanced Locksmithing.

However, we must touch this area of study briefly in order to move on.

There are Master Keying Computer Programs available that calculate the Security System, the Keys to be Cut and the Pinning Needs.

Pin Stacks may have more than just a top and Bottom Pin. As in Master Keying, another Pin is added to the Pin Stack.

Master Pins are much smaller than Top Pins, but are similar in shape. This Pin is flat on both ends. It is not rounded or pointed on one end as the Bottom Pin is.

A Master Pin is added to the Pin Stack when one is Master Keying. Master Keying is basically having "different" Cut Keys each operating their own individual Lock in that group. This single Pass Key or Change Key could only Unlock its' own individual Lock.

Each single Pass Key could **not** operate any other Lock.

Yet one Key, the Master Key, will open ALL of the Locks in that group.

When Master Keying is performed correctly, you might have a Master Key that would Un-Lock every Lock in a group of twenty Locks. You might have four of these twenty Lock groups each with a Master Key only capable of opening the Locks in its own group of twenty Locks. Yet a Great Grand Master, capable of opening all of the Locks, in all of the four, twenty Lock, Master Keyed groups. Adding more groups and more Master's and Grand Masters and thus adding Great, Great Grand Masters and so on.

Such may be the case in a chain of stores.

Thus the phrase Master Keying or Master Keyed.

When a Master Pin is added to the Pin Stack, the added length to the original Top Pin and Bottom Pin must be accounted for and eliminated to the total Pin Stack. You are gradually filling up the Pin Chamber. This being the case, a Key with shallow Cuts may not be able to enter the Lock. There would be no room to push the Pin Stack up into.

The Pin Stack Height is eliminated through the use of a smaller Bottom Pin and smaller Top Pin.

That is when calculations and or a Master Key Computer program comes in.

Let's continue.

The Master Pin or Master Pins are "sandwiched" between the Bottom Pin and the Top Pin. This creates an extra Shear Line or Shear Lines and thus it is technically easier to Pick the Lock.

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This extra Shear Line now increases the number of Keys that may operate this Lock.

There may be as little as one Master Pin in the Lock, to as many as several Master Pins in several Chambers of the Lock. I have seen Locks that possessed several Master Pins in each Pin Chamber.

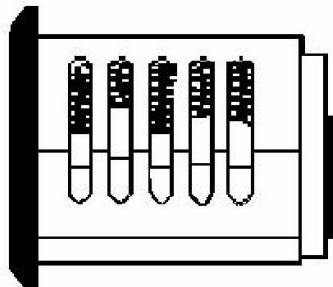
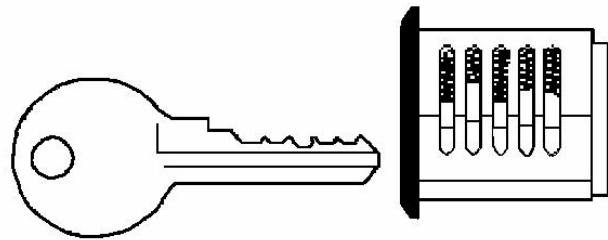
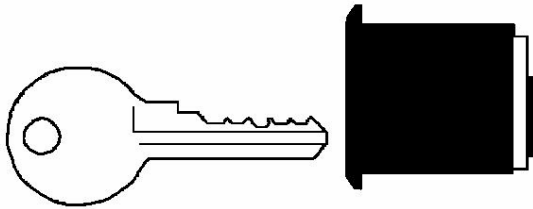
Each time a Master Pin is added, it multiplies the number of Keys capable of unlocking the Lock, thus lowering the Security somewhat.

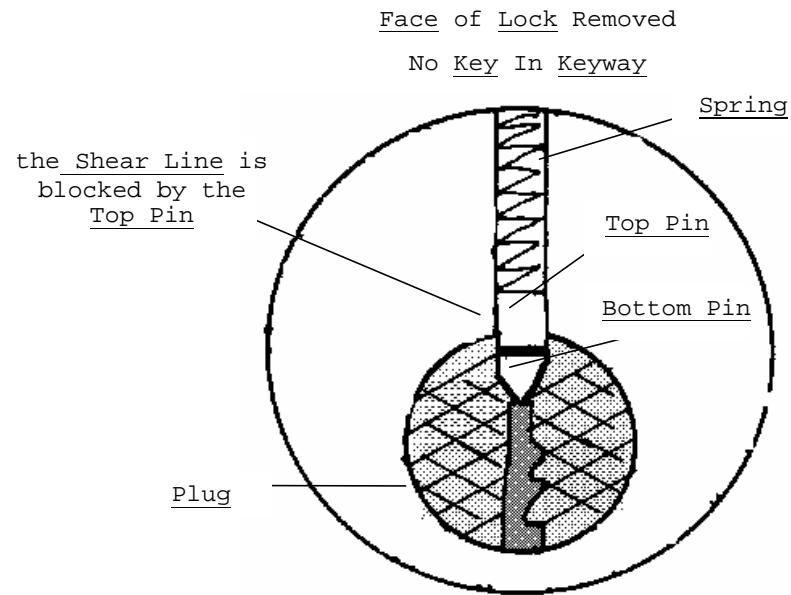
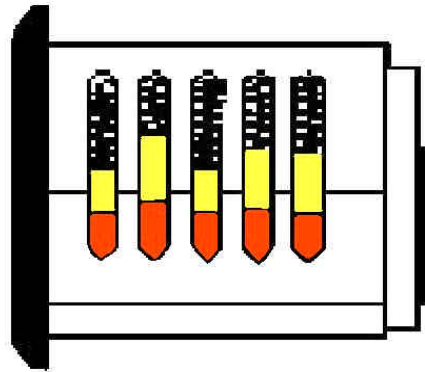
This WILL drastically reduce the Security of the Lock and make it easier to compromise.

Not only will it possibly Pick easier, but a Key that does not belong to that group may actually Work the Lock by "Jiggling" the Key. As if using Jiggle Keys.

Master Pinning books are available and are suggested reading. Master Keying may be an entire field in itself.

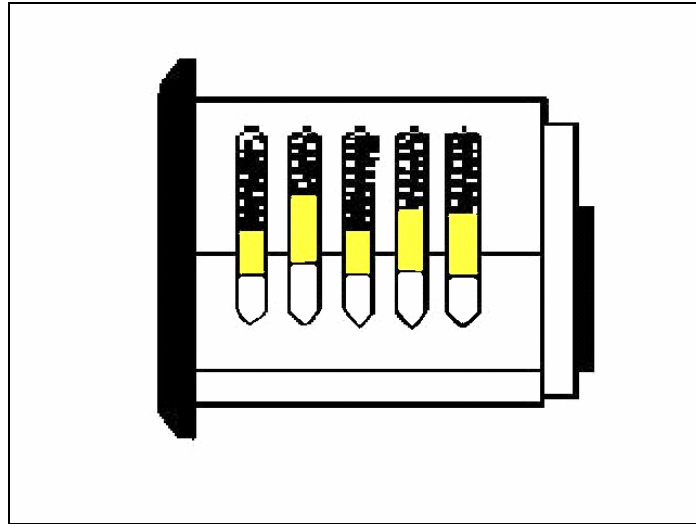
Let's continue with Basic Lock© now.





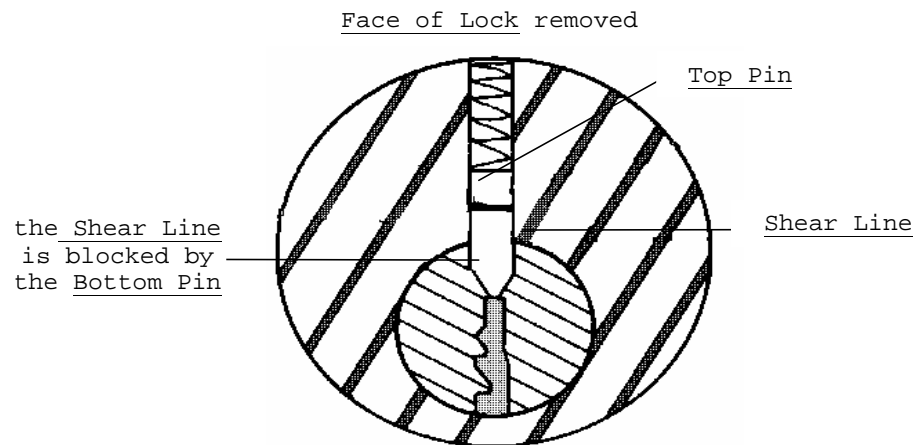
The Lock pictured above has no Key in the Keyway. The Top Pins are driven down by the Spring past the Plug Shear line, thus preventing the Plug from turning in the Shell.

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A Key that does not have the correct Combination of Cuts has been inserted into the Lock below.

With the wrong Key inserted, a Shallow Cut appearing on the Key Blank, would lift the Top Pin and Bottom Pin Shear Line past the Plug and Shell Shear Line, thus causing the Plug not to turn in the Shell. Notice the Bottom Pin has been lifted up blocking the Shear Line.

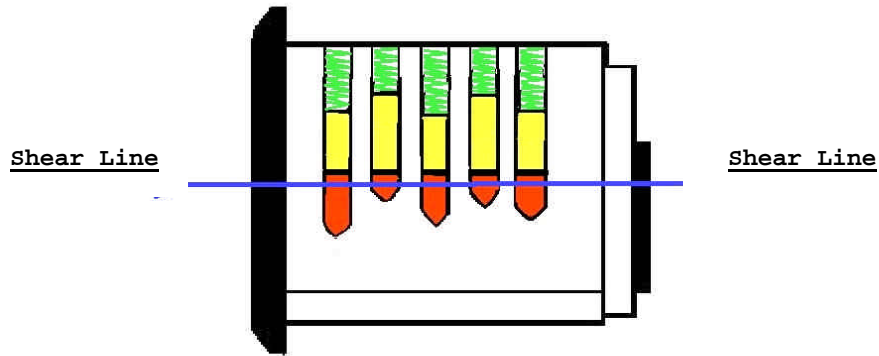


A Key inserted into the Key way as shown lifts the Bottom Pin or Pins past the Shear Line.

The Plug will not turn in the Shell.

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A # 6 Bottom Pin in the Chamber needs a number six Cut on a Key to bring it to the correct Shear Line.



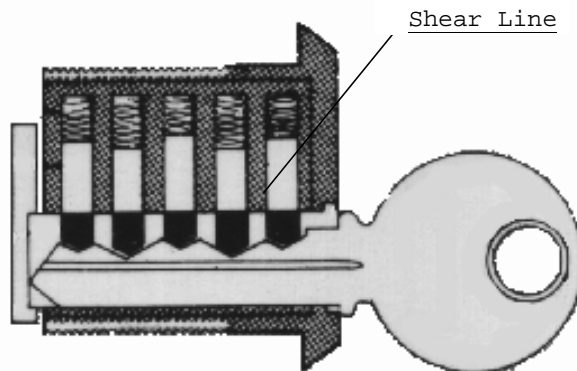
The Key pictured here has all of its Spaces Cut to the correct Depths.

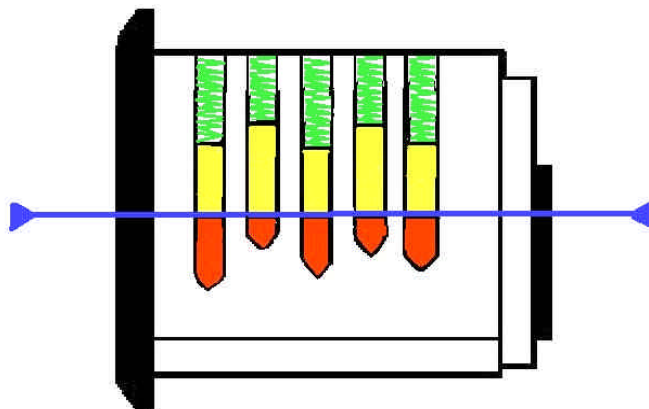
Notice that all of the Shear Lines meet, allowing the Plug to turn in the Shell.

The Bottom Pins are different sizes (heights), some short and some tall.

Notice how all of the Bottom Pins come to the same Shear Line at the top of the Plug when the correct Bitted Key is inserted to the Shoulder of the Key.

The correct Key creates a Shear Line





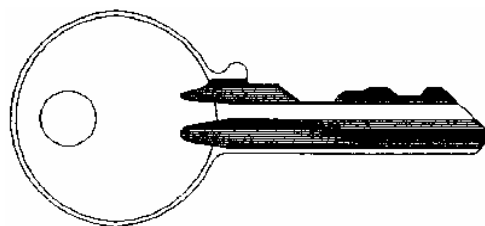
The correct Bitted Key will now turn the Plug Rotating the Tail Piece.

The Tail Piece is mounted on the exterior rear of the Plug.

The Tail Piece is what activates the rest of the locking mechanisms in the Lock.

Example: Latch, Electric Shunt etc...

This is where the electric Shunt Switch would be on a locking electric switch. This is what turns the Latch on a Deadbolt or Knob.



Re-Keying a Lock

A Schlage, or KwikSet construction grade Entrance Knob, or Rim Cylinder may be used for practice.

A Five Pin Lock will be used in the figure below.

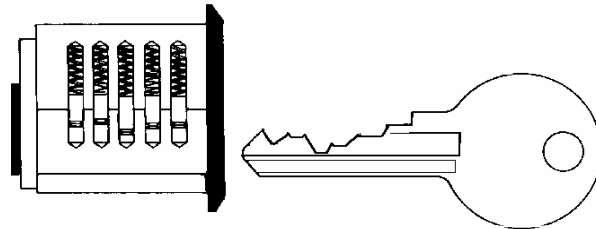


Figure #1

The Key must be inserted into the Schlage Knob Cylinder and turned to the two o'clock or the ten o'clock position. A "Poke Hole" may be seen on the neck of the Knob. A "Wafer" may be seen. With the Key still turned to the two o'clock or ten o'clock position, use a sharp Awl and push the Wafer in. As you are doing so, pull the Knob off of the assembly. The Key is now removed. The Rosette is removed and the Plug may be removed from the Knob.

Do Not Insert the Key into the Lock.

Remove the Keeper Ring or any small screws that might be holding on a Tail Piece. Remove any clips or screws that prohibit the Plug from being removed from the Shell. "C" Clips may be removed in a paring fashion with a mini screwdriver; as one would pare an apple with a paring knife.

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This picture (**Figure 2**) is a Cylinder for a Knob Set.

The replacement Cylinder on some of the better brands of Locks come in many different Key Ways.

Sometimes the replacement Cylinder will come with extra Tail Pieces. The extra Tail Pieces pictured here snap in and out from under a Retaining Ring at the rear of the Plug.

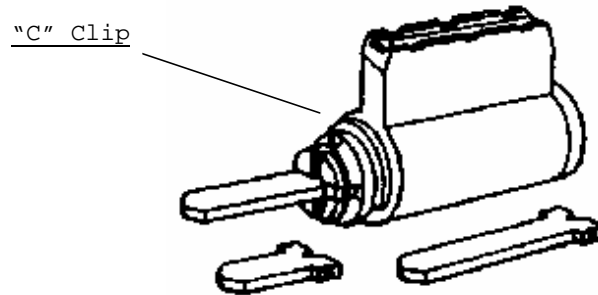


Figure 2

This picture (**Figure 3**) is a Deadbolt replacement Cylinder. A castled Cap holds the Tail Piece in place.

Note the different Tail Pieces between the Cylinders and how they are held on.

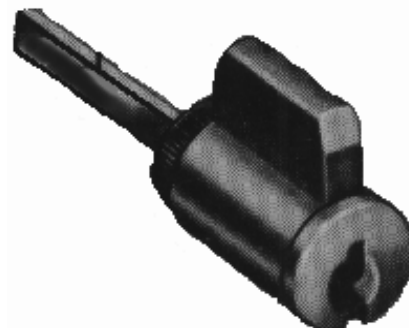


Figure 3

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This picture (**Figure 4**) is of a Mortise Cylinder and it also has a different Tail Piece.

This Tail Piece is held on by two screws.

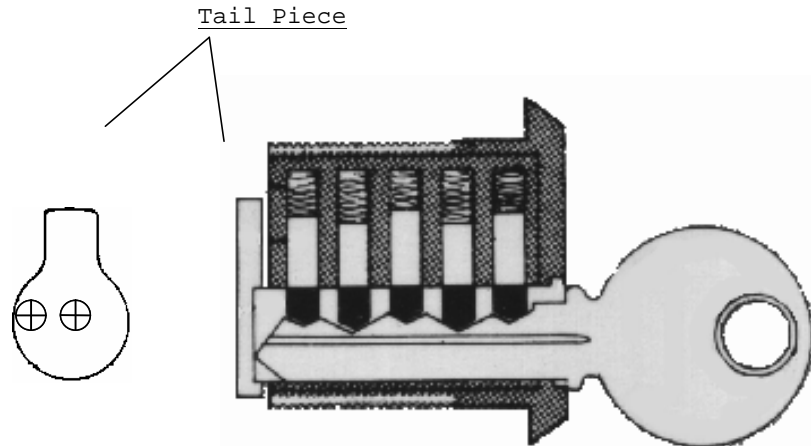


Figure 4

There are many different arrangements. Experience is the teacher.
Hold the Shell in your left hand and the Key in your right hand.
Using the correct Key, turn the Plug of the Lock to the ten o'clock or the two o'clock position.

Now that the correct Bitted Key is inserted into the Plug, and using a Plug Follower that is of the same size diameter as the Plug, you will maintain a constant pressure against the Tail end of the Plug with the Plug Follower as the Plug is pushed all the way through the Shell and out the front of the Lock.

The Plug Follower remains in the Lock Shell.

Doing this correctly should leave the Springs and Top Pins in the Shell that are held up by the Plug Follower.

You should have the Plug and Bottom Pins, "Up right" in your right hand.

All of the Bottom Pins have come flush to the top of the Plug with the correct Key inserted.

The Plug is now a complete Cylinder with no holes (Chambers) exposed. Every Chamber filled by a Pin.

Feel how smooth they feel and run your finger over the top of them. There should be no bumps.

The Pins should be smooth/flush with the Plug they are in.

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You will run into hard turning Plugs, some that have been Pinned incorrectly.

Some have had the Pin Chambers Reamed / MAGRIS©. Pronounced, MA GREE.

Re-Pinning the Plug

You should have the Plug and Bottom Pins, "Up right" in your right hand.

Simply Dump the Pins out of the Plug.

The first thing in preparing to Re-Key a Lock is to Cut the Key or have a Key that is already cut to the Manufacturers' specifications.

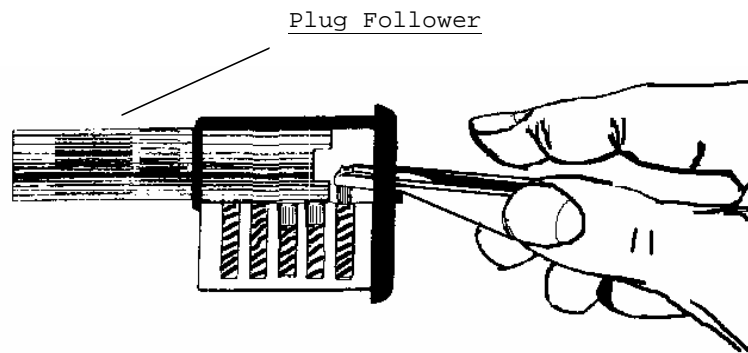
Either copy a Manufacturers' original Key or Cut a Key by Code. You must have an original new Key.

Write down the Depths of Cut from Bow to Tip.

Insert your new Cut Key into the plug. The correct new Bottom Pins are dropped into each corresponding Pin Chamber of the Plug. With the new Key inserted, as you drop in the new Bottom Pins, you will be able to visually see if the Bottom Pins and Key Cuts are correct. The Pins should be Flush and Smooth to the top of the Plug. If there are any Pins that are too short that cause a dimple or too long that cause a bump, they must be substituted with another Pin of shorter or Longer length. It is all right to keep trying Pins until the Pins are smooth to the top of the Plug. Some Manufacturers Specifications to some of the Cheaper Locks are way off.

(2) Loading The Top Pins

If we were to push the Plug Follower completely through the Lock and allow the Top Pins and Springs to pop out, we could Re-Pin or Re-Build the Lock.



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With the Plug still removed from the Shell, the Lock Shell is turned up side down and ready for you to load a Spring.

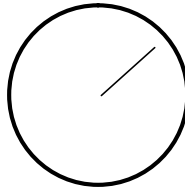
Slide the Plug Follower into the Shell leaving the middle Chamber exposed. Hold a Pin in your Tweezers and insert the Pin and push it down into the Chamber.

While you do this, with constant pressure, push the Plug Follower in so that the Top Pin that you loaded is held in its Chamber by the Plug Follower. It is a little tricky to maneuver and coordinate, but you will master loading the Chambers with a little practice. Be patient.

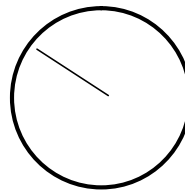
Hold and insert the next Top Pin. Load all Chambers in the same fashion.0

Always remember to **never** insert or remove a Plug in the "twelve o'clock position."

Always insert or remove the Plug at the two o'clock or ten o'clock positions.



Clockwise



Counter Clockwise

If you slide the Plug straight in or out of the Shell with out turning it, the Top Pins will be driven down into the Bottom Pins Chambers as the Plug slides past them.

The Lock will Lock up. At this point you would have a fine mess. In some cases the Lock might as well be ruined. If this does happen try shim Picking.

Well now you should have a good understanding of how a Pin Tumbler Lock works.

You have a lot of work to do.

Read Keys By Sight

With experience you will be able to Read Keys By Sight.

This is very helpful when a person has left their keys in the Ignition Switch and locked the door of their vehicle. I have found that people with expensive cars tend to put only that particular cars Keys on a single Key Ring.

When the Ignition Key is in the Ignition Switch, there is a good chance the Door Key may be seen hanging all alone, by itself.

Through the windows it might be seen. Sometimes when dealing with Corvettes you may have to look almost straight down through the windshield. I used a small step ladder to peer inside a van windshield one rainy night to attempt to read a clients keys by sight.

Reading a Key By Sight is very useful.

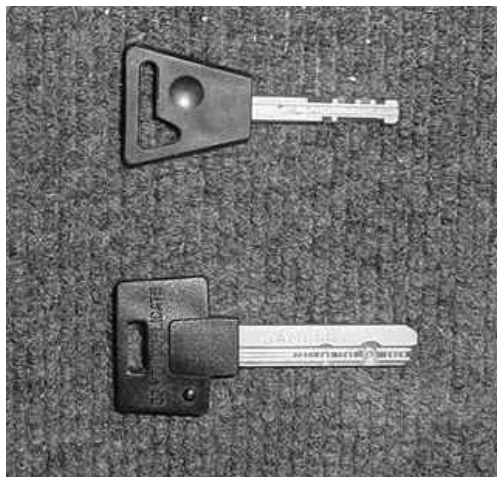
Seeing this talent used with a Code Key Cutter, Clipper, Punch, Stamp type tool is impressive.

Clip, clip. A little Progression, another clip and your in.

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Can you Read These Keys?

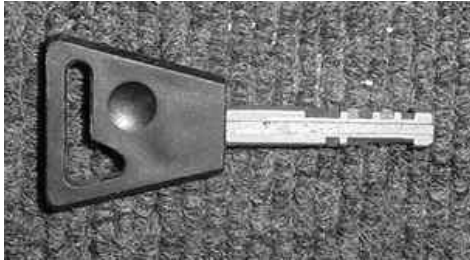
An Abloy Rod Key is shown in the top of the picture and a Multi Lock Dimple Key in the bottom the picture.



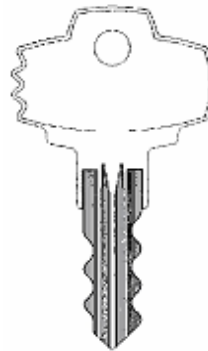
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Because the Key may retain a cut any where along the Keys Body, and the cut may vary to any size and or depth, the Code for a cut Key is infinite.

Although the cuts are not seen along the top of the blade edge, cuts do exist.

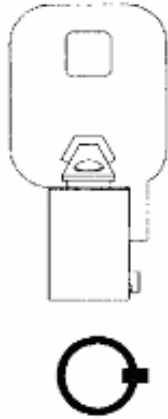


Fort Lock utilizes Pre-Cut Keys as well as uncut Blanks. The Key on the right is Pre-Cut at the fort factory and the Locksmith adds the additional cuts which are needed in order for the key to work the prescribed lock. I have found the Pre-Cut Fort Keys which I dealt with were used on vending machines.



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This is a Tubular Key shown with it's Cross Section shown below it.



I purchased a Medeco System for the Blackstone Massachusetts Police and Town administration Building. The system included two dozen high security cylinders, keys and an extensive bittings chart.

Abloy and Multi Lock as well as **ASSA, KABA, SCHLAGE** etc...are your best buys.

It is illegal to make keys to:

- * Bank Deposit Box Lock
- * Post Office Box LOCK
- * Parking Meter Lock
- * Pay Phone Lock.

* **Exception**, by proper authority and signed release

Use common sense, if you do not think you should perform the work, pass.

Use good judgment and Positive Ethics© in the work you do.

Remember:

Charge what you are worth!

Two Ends

You have two ends. One for sitting and one for thinking.
Depending on which one you use most.
Heads you win, tails you loose.

Rekey Return

Case History:

I Re-Keyed the Locks in a woman's house one Friday afternoon. She lived about thirty miles away in Bellingham, Massachusetts. Per my usual routine, when I was done, we went over each of the individual keys and checked that the keys worked each Lock correctly. My job was completed, I was paid, and my client was happy.

I left the site and drove home. I no sooner pulled in my drive when she was calling me saying that the keys did not work. I asked if she was using them correctly? She yelled at me, "Yes I am, I am not stupid!"

She told me that I did not do my job correctly. She demanded that I return to her house immediately.

I did. I fought the Friday afternoon traffic back to her house thirty miles away. Upon my arrival, I asked the woman to show me the Key and how it did not work. She did attempt to show me. I all most fell over.

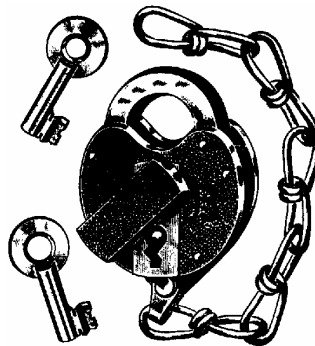
She was not inserting the Key into the Lock completely and thus it would not work.

I showed her her mistake. She was not inserting the Key into the Keyway far enough.

All she did was open the door and go inside.

She never said thank you or I am sorry.

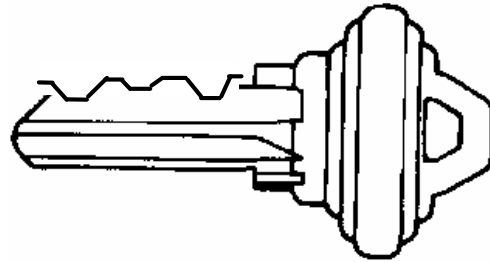
\$#@% &\$\$###@ @!###\$\$.



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When a lock is installed the Keyway of the Knob Set and Deadbolt Cylinder should have the Pins on the upper side.

In other words the Keys Cuts should be up when inserted into a lock.

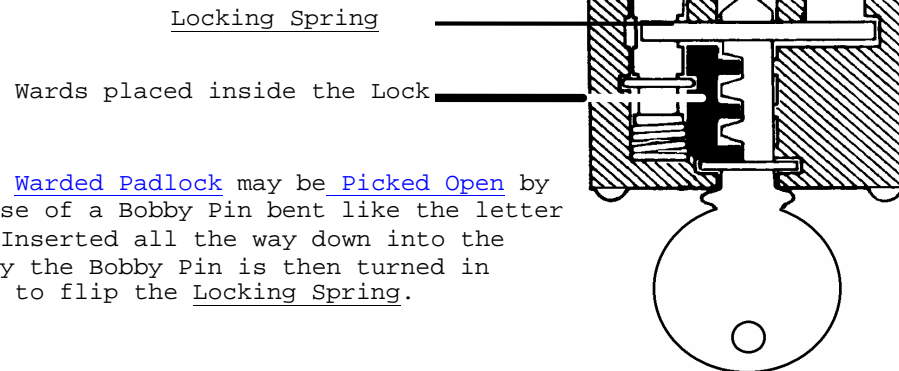


In this way, dirt, dust, and debris will not contaminate the Lock as readily as with the lock mounted the wrong way, upside down, with the Pins and Springs appearing in the bottom of the Lock.

A storm door that protects all of this is even better.

Wards and the Warded Padlocks

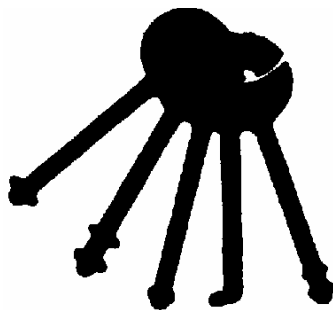
Warded Locks, in general, offer less Security than the Pin Tumbler type Lock. The Keyway has obstructions called Wards. The correct Key simply passes by the Wards flipping the Locking Spring out of the way. The Key is Cut similar to that of the Flat Steel Key. Square Cuts in various locations along the Blade of the Key.



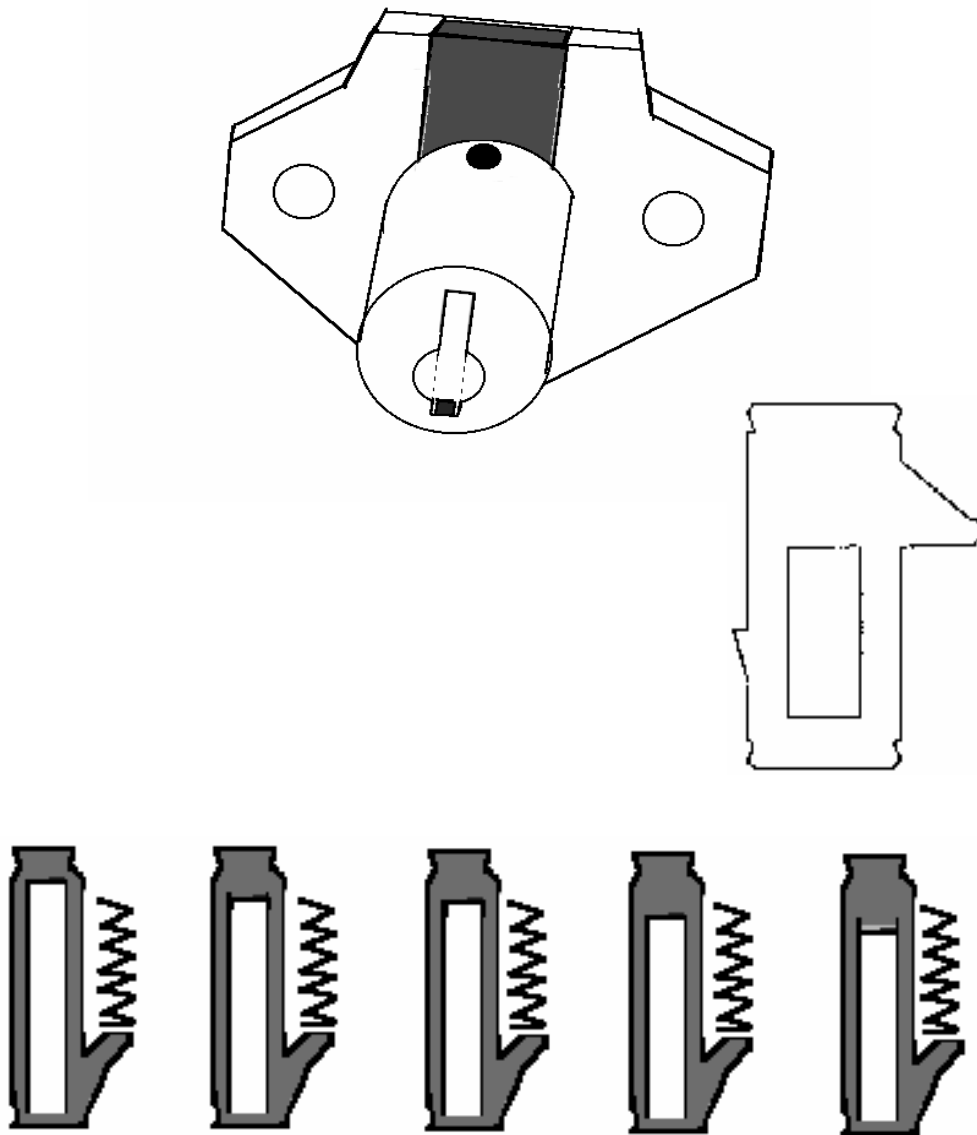
This Warded Padlock may be Picked Open by the use of a Bobby Pin bent like the letter "L". Inserted all the way down into the Keyway the Bobby Pin is then turned in order to flip the Locking Spring.

Warded Pick Set

This set of Picks is designed specifically for Picking open Warded padlocks. These five Warded picks will open just about all of the warded Padlocks one will encounter. I have never come across a warded Padlock that I could not open with this set.



The Wafer Lock or Disc Lock



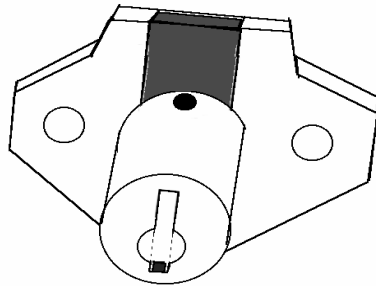
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Wafer Lock

Remember to use your Master Locksmith Security Encyclopedia Set© Dictionary© to assist you with your lessons.

The Wafer Lock has some, but very few similarities as a Pin Tumbler Lock.

The Lock in our diagram below has a neck. Usually mounted on a desk or cabinet. However, Wafer Locks may be found any where. From desks, cabinets, glove boxes to Foreign Automobiles.



Wafer Locks get tricky as do all phases of "Locksmithing."

For our lesson we are using a four or five Wafer (Disc) desk Lock.

Like a Pin Tumbler Lock, a Wafer Lock consists of a Plug, a Shell, a Keyway and uses a Key to operate the lock.

The rest of the operating mechanics, however, are very different than the Pin Tumbler Lock.

The Shell has two slots running the length of it. One on the top and one on the bottom.

The Wafer (Disc) is constantly pushed by the Spring out of the Plug and into the bottom slot. Thus Locking the Lock.

When a Blank Key with out cuts is inserted into the Keyway, it pushes the Wafer up and out of the bottom slot, out of the Plug into the upper slot. Thus Locking the Lock.

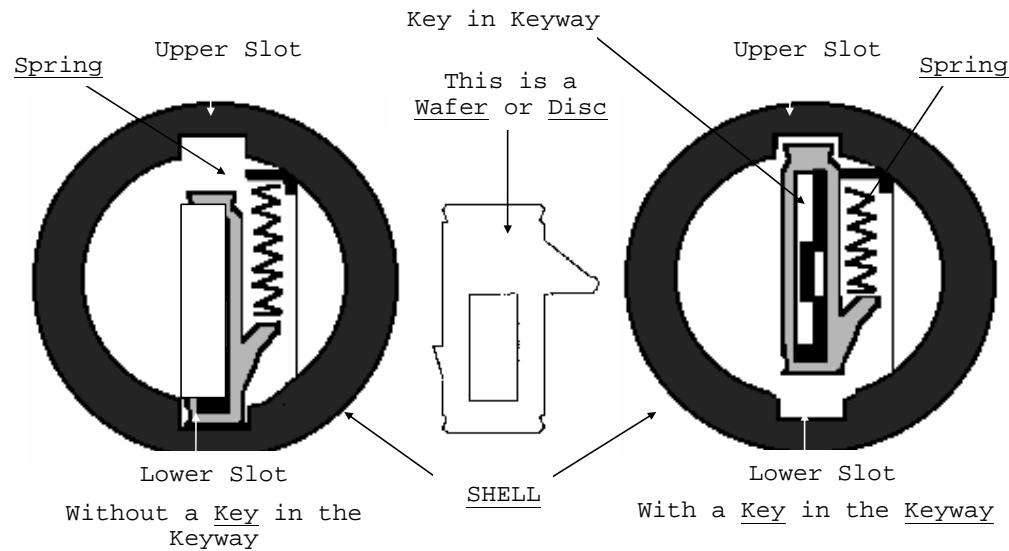
The Wafers are cut out in their middle allowing the Key to pass through them.

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<p>View straight on. <u>Lock Face</u> is cut away. A <u>Blank</u> is not inserted into the <u>Keyway</u>. The <u>Wafer</u> is driven down into the slot by a <u>Spring</u>.</p>	<p>View straight on. <u>Lock Face</u> is cut away A <u>Blank</u> = a <u>No Cut</u> is inserted into the <u>Keyway</u>. The <u>Wafer</u> is lifted up into the slot by the <u>Key</u>.</p>
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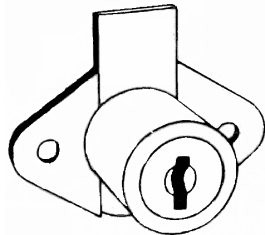
The Wafer is mounted inside the Plug, the Plug turns inside the Shell.

The Plug that the Wafer is housed in is not visible here for clarity of our discussion.



The Wafer is continuously pushed by the Spring into the bottom slot without a Blank in the Keyway

The Wafer is lifted up into the upper slot with a Zero Bitted Blank in the Keyway.



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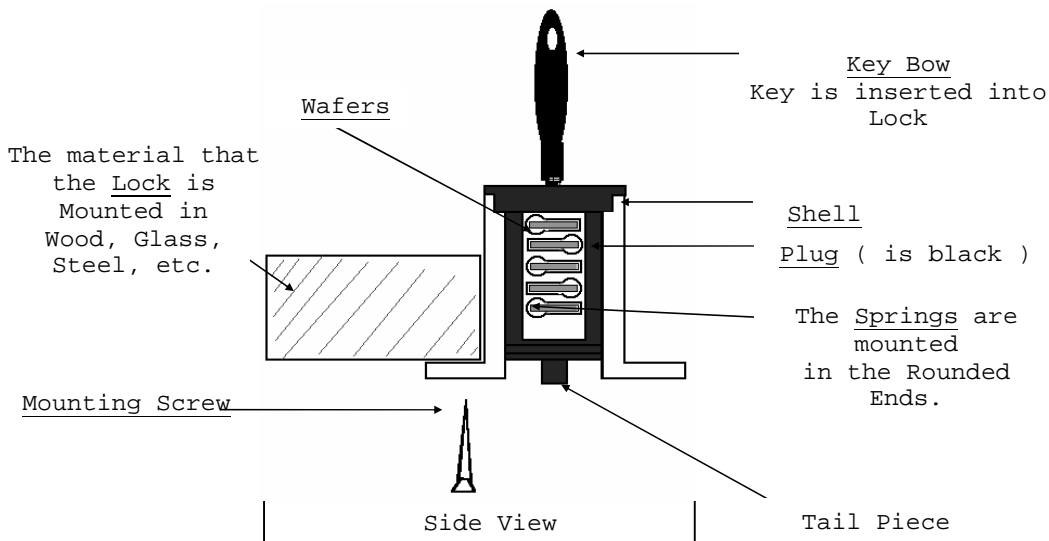
The correct cut Key inserted into the Lock brings all of the Wafers flush with the Plug allowing it to turn.

Our view is straight on down the Keyway.
The Lock Face of the Lock is cut away.
The correct Bitted Key is inserted in the Keyway
The Wafer is flush with Plug and inside Shell.

The Wafer is flush with the Plug at
the top and bottom.
It may now turn in the Shell.

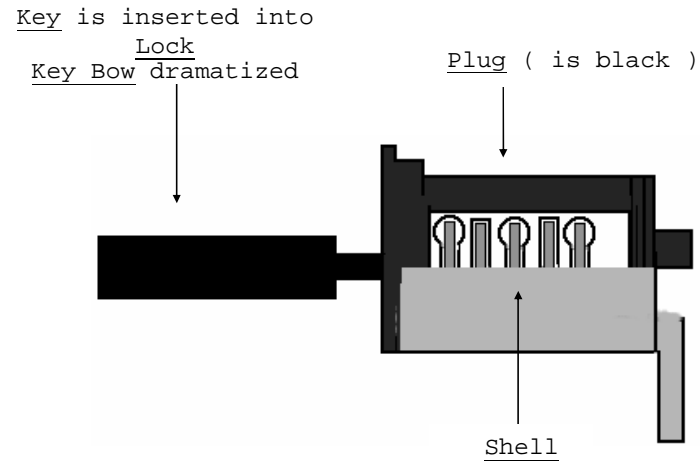


A Wafer Lock Mounted Upright. Side view.
Key In Lock (Key Bow Is Visible).
Top of Lock Cut Away.



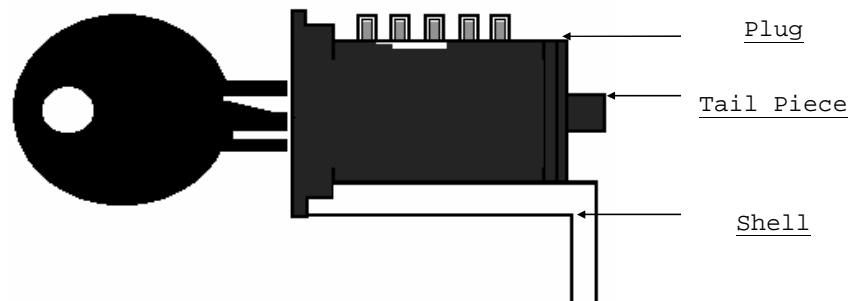
View from above looking down.
Shell is cut away for viewing Wafers.

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The Wafers would protrude into the Shell slot.

View from above looking down.
Shell is cut away for viewing Wafers.

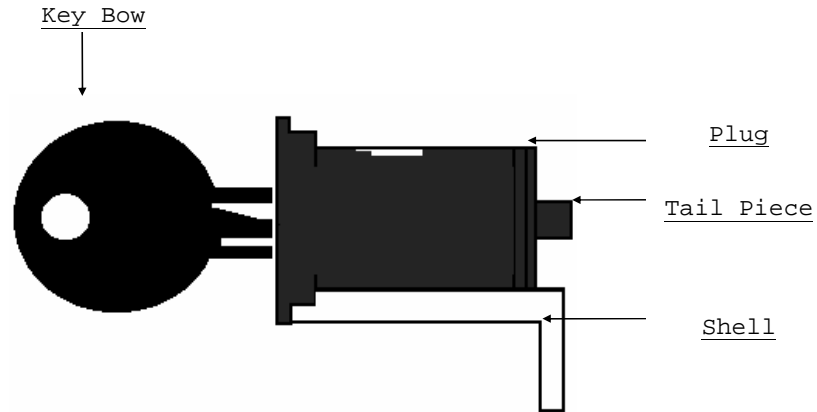


A Blank with no cuts is inserted into the Lock above.
The Discs (Wafers) are pushed out of the Plug and into the top slot
of the Shell.
The Wafers would protrude into the Shell slot.

View from above looking down.
Shell is cut away for viewing Wafers.

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The correct Bitted Key has been inserted into the Lock.
The Wafers are flush with the Plug and can not be seen. The Wafers would not protrude into the Shell slot.



The proper Key has been inserted into the Lock. The Discs are flush with the Plug and the Key has turned the Plug in the Shell.

The Wafers have a rectangular type hole in the middle of them. This is where the Key passes through.

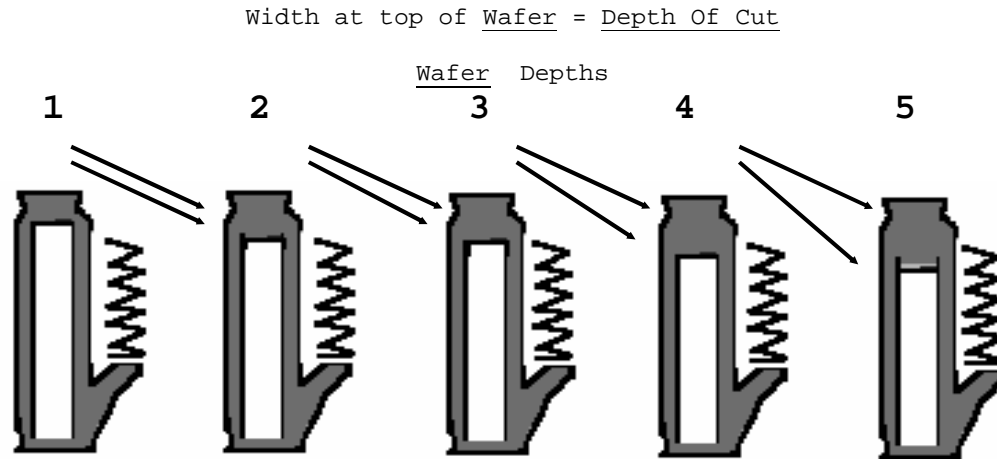
The Depth of Cut on the Key is related to the size Disc (Wafer) that is used for each space.

As you look at each Disc in the following picture you will notice that the width at the top of the Disc gets larger as the Depth of Cut for the Wafer increases.

This depth of Wafer equals the Depth of Cut for the Key.

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Notice that the Wafer gets wider as the Depth of Cut increases.
Notice the five Depth is wider at the top of the Disc than the one
Depth.



This top part of the Wafer is what rides in the Keys cuts and rests in a single cut. This type of Lock is relatively simple to Pick and just as easy to Impression.

The correct way to Re-Key is to use all new parts. Remove the plug and either push the Wafers out or pull the Wafers out. Which ever is easiest. The wafers only come out one way. Sometimes the wafers are staggered from one side of the Lock to the other. You would need a new Key by Code or a Factory original.

However, should the situation arise, you could get by with the following method.

If you have to cheat when you are Re-Keying this type of Lock, have the Plug in your hand and insert the new Bitted Key that you would like the Lock to operate with.

With the Key inserted you will notice that some of the Wafers stick up above and below the Plug.

The Wafers that are obviously too long should be filed. Use your flat file and carefully file these down so that they are flush with the Plug. You may have to remove a short Wafer or two which will allow the Plug to turn in the Shell.

Another second way;

You may even use the original Key and file some of the cuts deeper and take a Greater Depth Wafer from another slot and swap. File the Key a little more if need be until the Wafer fits in the Cut.

I do not recommend this method. It is for emergency situations only!

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Wafer Reading

Wafer reading is an art. There are entire books written on the subject. The subject matter is too great in length to discuss here.

Wafer reading is when you insert a small probe down the Keyway and lift the Wafers one at a time.

You then read or look at the top of the Wafer, the part that determines the Depth of Cut, and try to determine what its true Depth of Cut is. Reading each Wafer like this and then successfully cutting an operating Key.

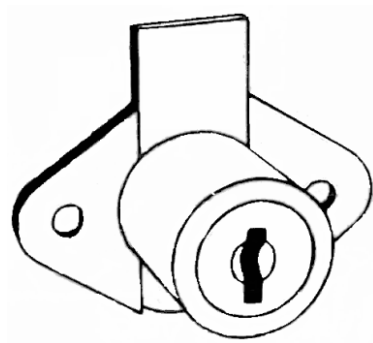
There are many Locks on the market and they all are constructed differently.

Yet they all have the same basis of operation.

They all have some way of coming apart.

All security can be breached if you are knowledgeable.

Look for it.



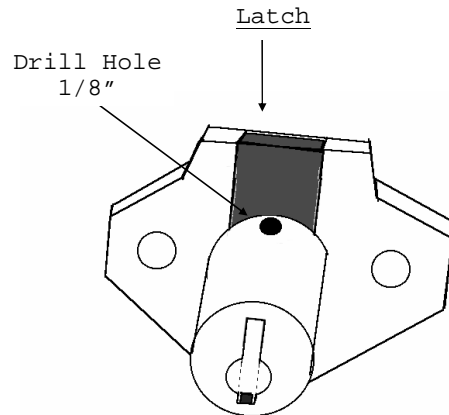
Wafer Plug Removal

This is one way that a Wafer Plug may be removed from a Shell.

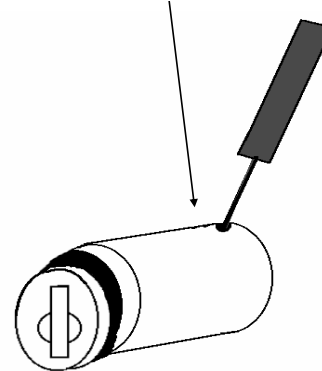
This particular Lock has a retaining Wafer inside. You must drill for it as indicated if you wish to remove the Plug.

After drilling (drill only through the case and stop) you will use a probe or dentist pick in order to push down the Retaining Wafer. As you push down the Retaining Wafer you pull the plug out of the Lock case or Shell.

While the Plug is removed use your Pick Set to examine the Lock. Take the time to Rake and Pick the Wafers.



Use poke Probe to push
retaining Disc

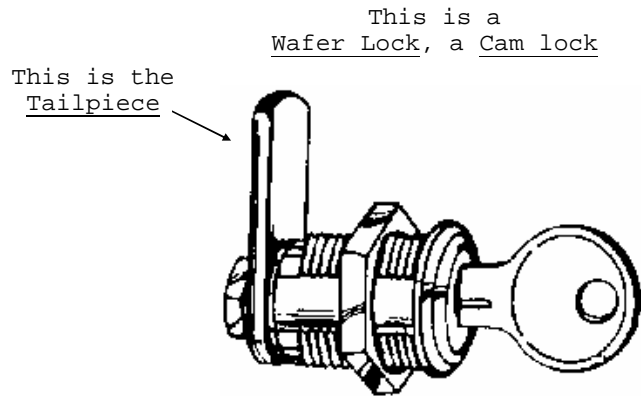


Dissect a Lock or two or three and see what they are made of.
Purchase several Locks at your Hardware store for this purpose.
This is how a good Locksmith learns. Experience is the best teacher.
Be inquisitive and Investigative!

The Cam Lock

There are many Cam Locks available on the market. Cam Locks are used in File Cabinets, Drawers, Vending Machines, and many other applications.

The basic Wafer Lock is also fairly easy to Impression.



There is a square protrusion at the rear of the Plug. The square protrusion is a threaded Female with a square base.

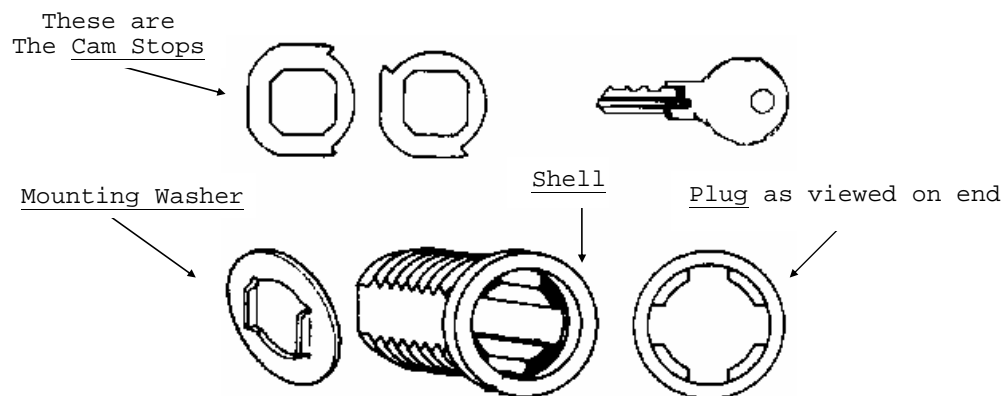
The square base is for mounting a Cam to. The Cam is pushed firmly onto the square piece. After the Cam has been added, a Tail Piece of the desired length and shape is then pressed onto the square base.

A screw is then threaded into the Female to hold all the pieces in place.

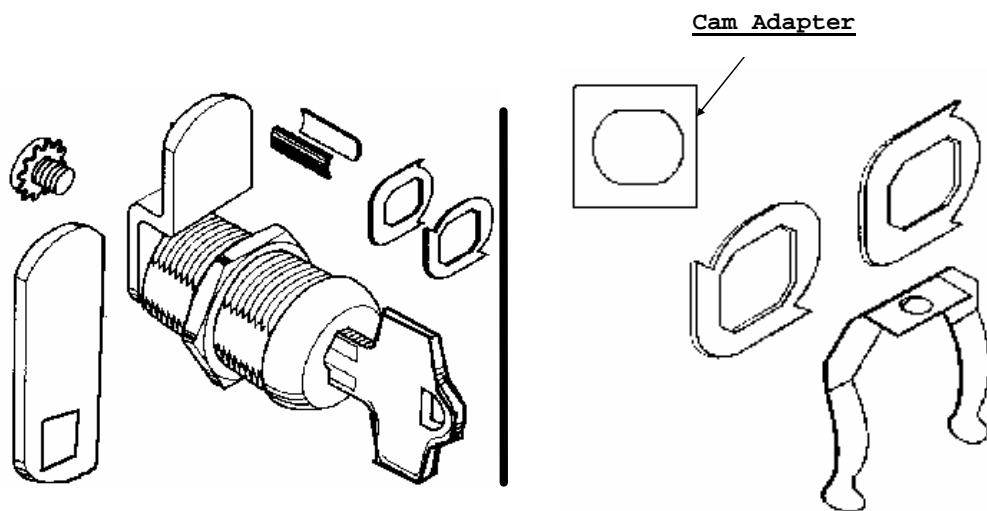
The Cam Stop, stops the rotation of the Plug.

The Cam Stops come in different shapes which allow the installer to regulate where the Tailpiece stops when rotated. The Cam Stop effects the Unlocking and Locking positions of the cam. This also dictates in what position the Key may be inserted and removed.

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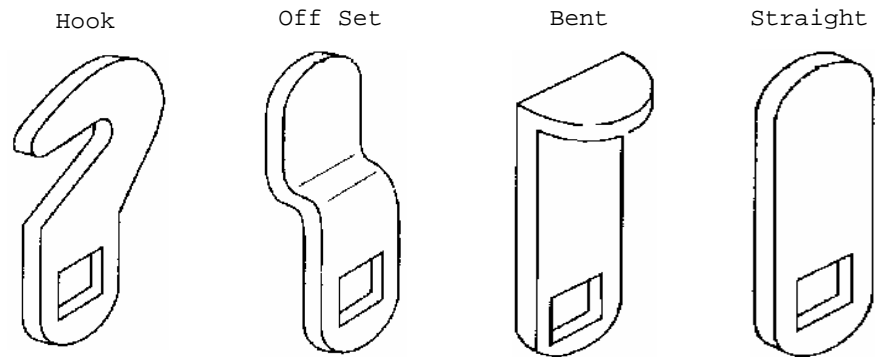


Basic Wafer
Cam Lock

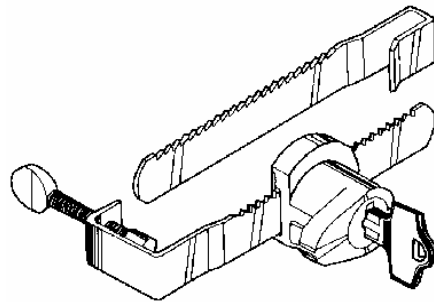


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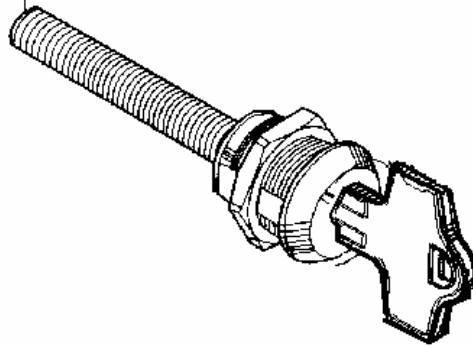
These are just some of the many Cams / Tailpieces that are used. Customizing (filing, cutting, drilling, etc...) the Cam is not uncommon when one is working with this type of Lock and its applications. I have welded two Tailpieces together, in order to "custom make" an extra long Tail Piece.



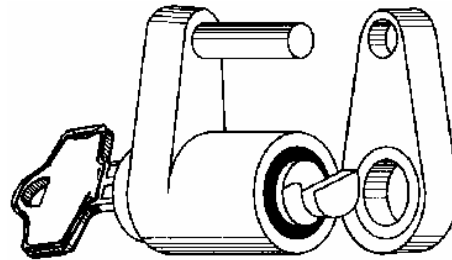
Show Case Lock
Basic Wafer



Threaded Shaft Lock
Basic Wafer



Trailer Lock and Gate Lock
(Ship fast)
Basic Wafer



There are many types of Wafer Locks. Many are very difficult to Create Keys for as well as work on. Such as Foreign Automobiles.

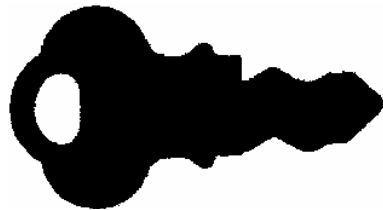
I would suggest starting with some Basic Wafer Locks and get those mastered before moving onto the more difficult ones such as the Double Sided Chicago Wafer lock.

Double Sided Chicago Wafer Lock

The Double Sided Chicago Wafer Lock is a breed into itself.

This is for advance Locksmithing. A Key that is needed for a Lock may be created through the use of Silhouettes.

The correct Code Book will have pages and pages and pages of Key Silhouettes. The Silhouette that is believed to be the correct Silhouette is either copied or cut out of the page. It is then taped to the correct blank and very carefully the Silhouette is cut out by hand on a manual Key Machine following the Silhouette. It is very tricky and I do not recommend this to the beginner.



Case History:

January 15, 2000 Saturday, Monday was Martin Luther King Day.

Holiday Weekend Liz received the telephone call. The woman (Marcie) was calling from Greenback, Tennessee. Those of you who are aware of, or are learning Advertising / Telephone operations should understand that this call is from quite a ways out of my service area. At least forty miles.

The woman had a file cabinet, had lost the key and needed a key created.

The "Other Locksmith" told her that it was a KP1 Key and code number 6435.

It was an Aurora, All Steel, Four Drawer, File Cabinet.

She said the "Other Locksmith" did not have the Key Blank, and could not Cut the Key.

My first thought was, why does this Locksmith possess all of the information, but has no Key Blank?

That certainly is a waste of money, time, and information. Code Cards, Code Machines and Cutting Wheels. Red Flags should pop up.

Upon my investigating further into my sources of information, I found that the key was a Double Sided Chicago. I had the Key Blank in stock.

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I possessed the Key Machine, the Cutting Wheel, the Silhouettes and the knowledge.

I then called the woman back and explained to her my fees.

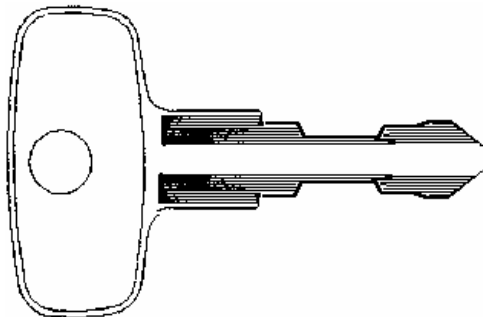
I explained the Silhouette Keys and I also explained why the "Other Locksmith" did not have the Correct Key Blank in stock.

The "Other Locksmith" could not perform the work and there for did not have the Key Blank in stock. She agreed that the "Other Locksmith" having the codes was a waste of information if he did not have the key.

The lesson here is to listen to the information that the client gives you. Ask questions of the client and ask questions to yourself. You will be surprised at the answers and at the money you will make. Not to mention the aggravation and loss of time.

The woman never did hire us.

Yamaha Motorcycle Wafer Lock Key



Picking a Lock Part I

Picking A Lock (Lock) - the act or attempt of manipulating the Pins in a Pin cylinder to their Shear Lines by other than the correct working key.

The Tension Wrench that is applied in Picking accomplishes the same action as turning the correct operating Key.

TENSION WRENCH



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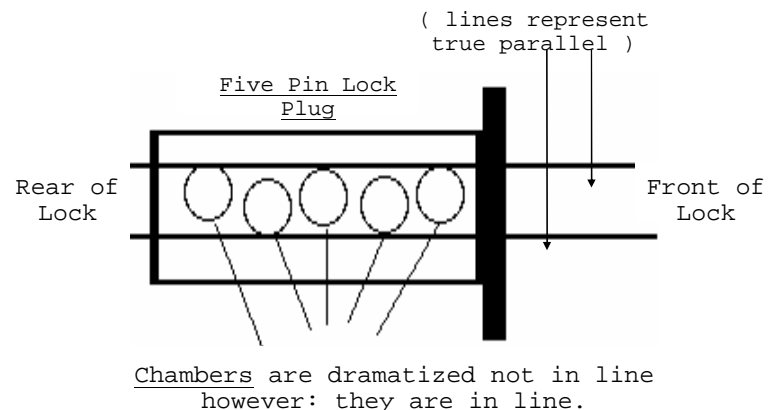
When you insert the correctly Bitted (Combinated) Key, you bring the Pins to the correct Shear Line, then you turn the Key. Without your turning the Key, the Lock will never open. You may want to refer back to your Basic Lock lessons if you have any questions.

When Picking the Cylinder you must apply constant turning pressure to the Plug. This is because the Pins do not stay at the Shear Line position due to the constant downward pressure of the Springs.

As in Picking a Lock, when a Tension Wrench is inserted in the Key way and Tension applied to the Core / Plug, not all the Pins bind in their Pin Chambers at one time. This is due to the Manufacturers holes being drilled slightly off from true parallel. This slight variance is due to the Manufacturer's equipment being off of alignment each time a hole is drilled. To the naked eye, the holes appear to be in line. This slight variance is what allows us to Pick the Pins.

\
(**AERIAL VIEW**)

Plug removed from Lock & viewed from top



As the Pins are Picked, this binding allows us to lift the Pins to the correct Shear Line. A slight, very slight turning movement may be felt by the Plug. Sometimes looking at the Plug will reveal this slight turning motion. Keep Picking until the Plug turns in the Shell and the Lock opens.

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First spray the Keyway of the Lock with a light lubricant.

* Note *

I would like to add that your intentions here must be balanced. If you spray a lubricant into the Keyway it will adversely effect your progress if you then decide to Impression a Key. You will have to clean the Keyway with a cleaner to Impression a Key.

We will presume for all intentions and purposes that we do not intend to be put in the position of Impressioning. A discussion for later.

After spraying the Locks' Keyway with a light lubricant, Tension is then applied by the Tension Wrench at the top or at the bottom of the Keyway.

The Tension is applied constantly to the Plug. It may be light, medium, or hard Tension. It may vary between light and hard.

* Note *

There are light, medium, and hard Tension Wrenches available.

There are Long and Short Tension Wrenches available also.

There are Tension Wrenches that are straight necked and Tension Wrenches with twisted necks.

The twisted neck Tension Wrench (to me) has a better spring to it as well as a better feel.

I personally like a "Medium 3" Twisted Neck Tension Wrench.

The Tension is applied constantly and consistently to the Plug.

As long as it is constant pressure. If you release the Tension, the Springs will push the Pins back down and you will have to start the Tension and Picking process over.

You must bind the Pins with the turning motion. As you apply Tension, insert your Rake Pick down the Key way and draw it out quickly "Raking" the Pins up toward the top of the Plug. When you do insert your Rake Pick down the Keyway, insert the Rake Pick below the Pins so as not to push the Pins up as you slide the Pick in. And then Rake - Pick. The Rake action would attempt to push a group of Pin Stacks to the Shear Line at one time. Some people Rake hard and some soft.

After you have done this several times, you might want to use a Diamond Pick. Still applying constant pressure to the Plug, insert your Diamond Pick into the Keyway. Again, when you do insert your Diamond Pick down the Keyway, insert the Diamond Pick below the Pins so as not to push the Pins up as you slide the Diamond Pick in. And then Pick.

Now you are trying to Pick individual Pins to their Shear Lines. When I say Pick, I mean, try to bring each Pin Stack to its correct Shear Line.

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When all of the Pin Stacks in all of the Pin Chambers reach the correct Shear Line at the same time, the Plug will turn in the Shell.

A Hook Pick is used to Pick a Longer Pin Stack that is located behind a shorter Pin Stack. You would attempt to reach under and behind the short Pin Stack and Pick the longer Pin Stack without disturbing the (already Picked) shorter Pin Stack.

The Shear Line for each Pin Stack in each Pin Chamber must be brought to the top of the Plug.

When all Pin Shear Lines are flush with the top of the Plug and you are applying constant turning pressure (as with the correct Bitted Key, hence the Tension Wrench), the Lock will unlock.

Only the correct Combination, of bringing the Pins to the correct Shear Line and tension, will allow the Plug to turn in the Shell.

When it does turn, use a Flat Head screw driver to finish unlocking the Lock. Be gentle, you do not want to damage the Keyway.

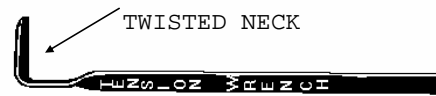
After this is accomplished, remember to turn the Plug back to the upright position.

If you do not turn the Plug Back to the Locked position, the End User will not be able to insert their Key and they will call you back complaining that you damaged their Lock.

If the Lock is Keyless (the Key being misplaced), at this point you would leave the Plug turned in the unlocked position to Re-Key or Decode the Plug. You should not turn the Plug back to the Locked position. If the person has a Key for the Lock inside the premise or elsewhere you would turn the Plug back to the upright position.

Different Types of Picks

3" Medium Twisted Neck Tension



Rake Pick



Diamond Pick



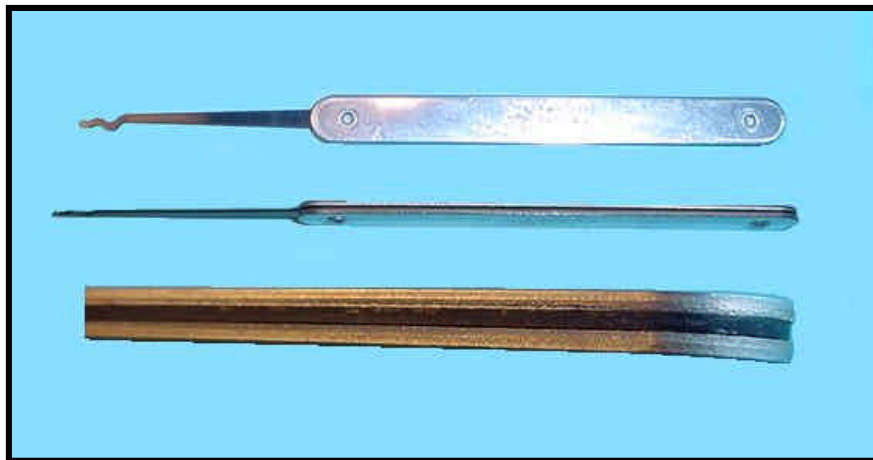
Hook Pick



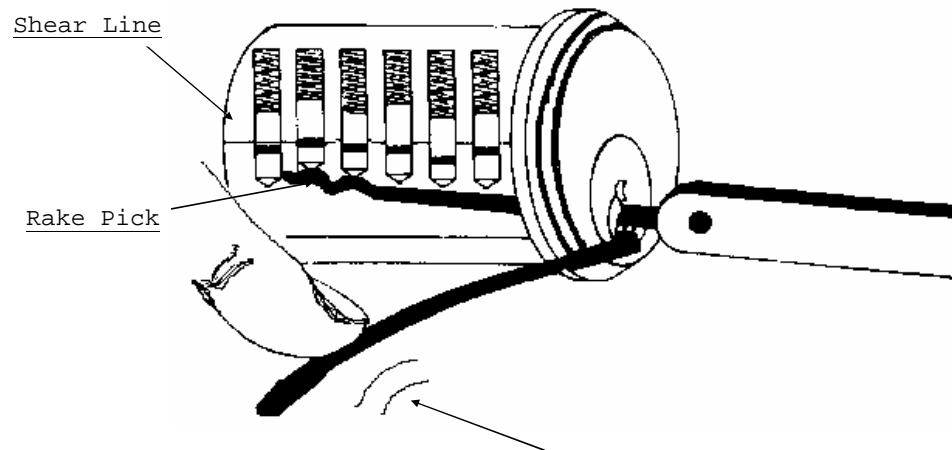
* Note:

Picks come in different thickness and styles.

Some have Plastic Handles, some Metal and some have no handles at all. Be an informed consumer when you purchase products.



Picking a Lock Part II



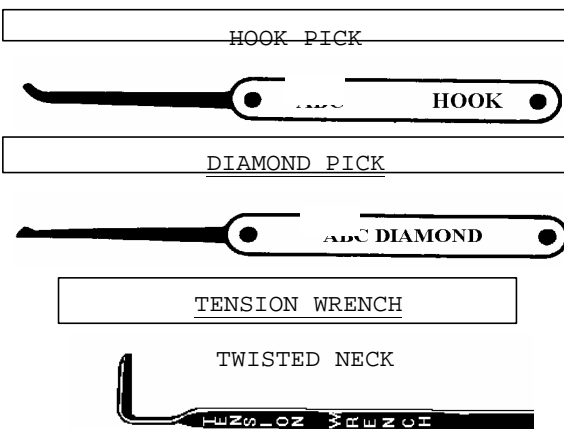
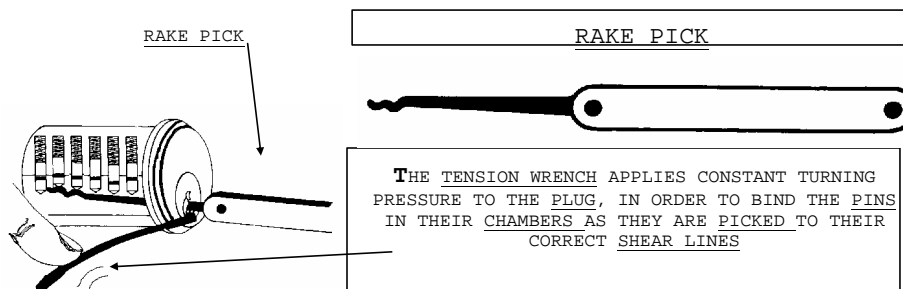
The Tension Wrench Applies constant gentle turning pressure to the Plug, in order to bind the Pins in their Chambers as they are Picked to their Correct Shear Lines. Tension may be applied in either direction.

Wafer Locks Pick in a similar fashion. The Wafers must be brought flush to the top of the Plug.

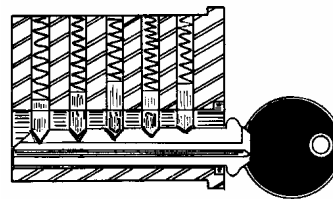
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Reverse Picking

This method utilizes pushing all of the Pins up into their Pin Chambers at one time, then holding them there with the use of a Tension Wrench. The tension is then released slowly allowing the Drivers (Top Pins) to stop at their correct Shear Lines. Any Pins that fall completely back into the Plug are then picked in the conventional method to their Shear Line.



The correct combination brings all of the Pins to the Shear Line.



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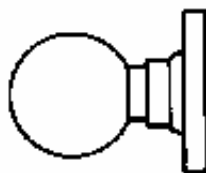
The many Knob Shapes, Deadbolt Shapes and the Positions they are mounted in and their placement will dictate the Picking Procedure or method used to circumvent the Lock.

I have snipped the handle of a Tension Wrench in half or more thus creating a mini Tension Wrench which I will use to Pick Open Tulip Shaped Knob Sets. Or a snipped Tension Wrench may aid one in Picking open a Lock, which has been mounted directly next to and against a tight fitting door jamb and Picking in the "wrong Direction" is the only option.

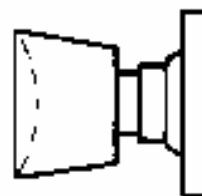
Plymouth



Ball



Tulip



The Art of Picking a Lock

Set Up Instructions

***Clymers Crash Course© for Picking a Lock*©**

To begin; I suggest using a Plug Follower, then remove all Springs and Pins from all, except one of the Pin Chambers. Practice and Pick this single Pin Stack.

When you feel you have accomplished this to your satisfaction move on.

Now fill two Pin Chambers; Pick this second Pin Stack in addition to the first Pin Stack.

Now proceed with three Pin Chambers and so on.

After Pinning up and Picking all five Pin Chambers and you feel confident in your picking acquire another Lock and repeat the process.

Practice. Read the book and then watch the video, CD...

Please remember to look up any Underlined Words in the Master Locksmith Security Encyclopedia Set© Dictionary©.

This will aid you in your learning process.

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Setting the Lock up for Practice Picking.

A vise is strongly recommended to mount your; Knob Set, Mortise Cylinder, Rim Cylinder, etc... to practice Picking and or Re-Keying.

A **Schlage**, or KwikSet construction grade Entrance Knob, or Rim Cylinder may be used for practice. The Schlage Construction Grade knobset is what I strongly recommend to practice most types of Locksmithing upon. And my choice of style is Plymouth.

A Five Pin Lock will be used in the figures below.
Practice loading and unloading Pins for Picking practice.

Schlage Plymouth Style Knob Set



A Five Pin Mortise Cylinder

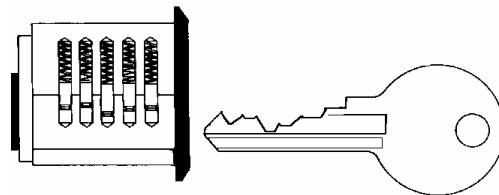
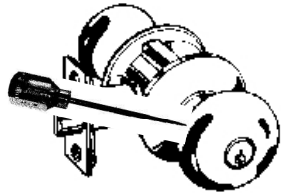


Figure #1

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The Key must be inserted into the Schlage Knob Cylinder and turned to the two O'clock or the ten O'clock position.

Two "Poke Holes" may be seen on the neck of the Knob.



A "Wafer" may be seen in only one "Poke Hole".

With the Key still turned to the two O'clock or ten O'clock position, use a sharp Awl and push the wafer in. As you are doing so, pull the Knob off of the Spindle assembly.

The Key is now removed.

The Knob Rosette Ring is removed from the back of the Knob now in hand and the Plug may be removed from the Knob.

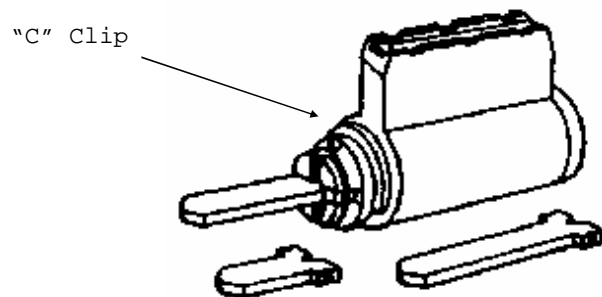
Do not insert the Key into the Lock.

***Note:**

On Older Knob Sets the "Neck Ring" or "Neck Collar" will sometimes rotate thus covering the "Poke Holes" and Retaining Wafer. Your job will be to determine such and attempt to find the holes and wafers.

Remove the Keeper Ring

Remove the Keeper Ring or any small screws that might be holding on a Tail Piece as with a Mortise Cylinder. Remove any clips or screws that prohibit the Plug from being removed from the Shell. 'C' clips may be removed in a paring fashion with a mini screwdriver; as one would pare an apple with a paring knife.



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Hold the Shell in your left hand and the Key in your right hand.
Please see **figure #1** below.

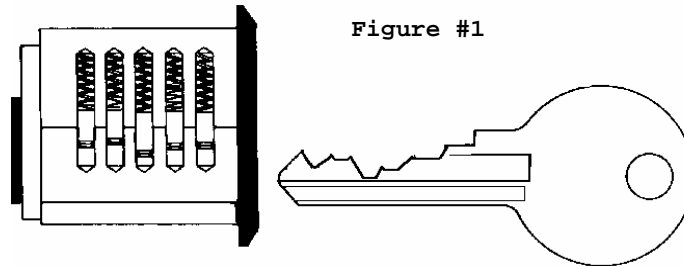


Figure #1

Using the correct Key, turn the Plug of the Lock to the ten o'clock or the two o'clock position.

Now that the correct Bitted Key is inserted into the Plug, and using a Plug Follower that is of the same size diameter as the Plug, you will maintain a constant pressure against the tail end of the Plug with the Plug Follower as the Plug is pushed all the way through the Shell and out the front of the Lock.

The Plug Follower remains in the Lock Shell.

Doing this correctly should leave the Springs and Top Pins in the Shell that are held up by the Plug Follower.

You should have the Plug and Bottom Pin "Up Right" in your right hand.

All of the Bottom Pins have come flush to the top of the Plug with the correct Key inserted.

The Plug is now a complete Cylinder with no holes (Chambers) exposed. Every Chamber filled by a Pin.

Feel how smooth the Pins feel. Run your finger over the top of the Pins. There should be no bumps. The Pins should be smooth/flush with the Plug they are seated in.

You will run into hard turning Plugs, some that have been Pinned incorrectly. Some have had their Chambers Reamed / Magris.

Pronounced Ma / Gree. This tool will ream out the cylinder holes of a lock plug. If the holes are out of shape or have been damaged this tool will help. The other end of the tool may be used for Deburring a damaged Pin.



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As you **carefully** pull the Key out of the Plug, you will notice how the Bottom Pins drop down into their Plug Chambers.

If the Plug was in the Shell, the Top Pins (pushed down by the Springs) would have been driven down into the Plug Pin Chambers, keeping the Plug from turning in the Shell, thus Locking the Lock.

Remove as many of the Bottom Pins (Pins in the Plug) as you would like. Remove the corresponding Springs and Top Pins from the Shell. The same Springs and Top Pins corresponding to the removed Plug Pins (Bottom Pins). This is accomplished by slowly removing the Plug Follower and allowing the Spring and Top Pin from the Pin Cylinder to pop out.

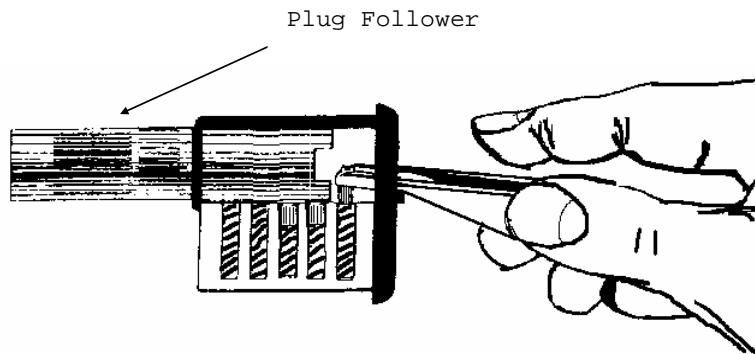
The Shoulder of the Key is that which rests upon the face of the Lock.

The tip of the Key is located closest to the Tail Piece.

If the corresponding Spring and Top Pin (corresponding to the Plugs Bottom Pin) are not removed, the Spring will drive the Top Pin down into the empty Chamber where the Bottom Pin was removed from, and the Lock will Lock up. You will now have to Shim Pick. You will have a mess.

Loading the Top Pins for Picking

If we were to push the Plug Follower completely through the Lock and allow the Top Pins and Springs to pop out, we could quickly Re-Pin or re-build the Lock.



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With the Plug removed from the Shell, the Lock Shell is turned up side down and ready for you to load a Spring for the Chamber (s) in which you intend to Pick.

Slide the Plug Follower into the Shell leaving the **middle** Chamber exposed. Hold a Pin in your Tweezers and insert the Pin and push it down into the Chamber.

While you do this, with constant pressure, push the Plug Follower in so that the Top Pin that you loaded is held in its Chamber by the Plug Follower. It is a little tricky to maneuver and coordinate, but you will master loading the Chambers with a little practice. Be patient.

Hold and insert the next Top Pin. Load all Chambers to be Picked in the same fashion.

My words of advice are:
Practice, Practice, Practice.

Plug Spinners

As we have mentioned and encountered earlier, a Plug will sometimes Pick easier in the wrong direction than in the correct direction. By this I mean that the Plug may be Picked, but the Lock will fail to Un-Lock or open. That is because it has turned (rotated) in the wrong direction. It was turned Clock Wise when it should have been turned Counter Clock Wise or vice versa.

To Lock the Plug back up and try Re-Picking the Lock is some times futile. The same Lock will Pick again and again in the wrong direction, but never in the correct direction.

Sometimes a Lock will Pick open once and you can never Pick it open again.

The remedy here is to use a Plug Spinner. Plug Spinners come in different shapes and styles as do all Locksmith tools. Some Plug Spinners utilize elastic bands, some spring steel and some use other materials.

I personally like the spring steel variety of Plug Spinner.

The Plug Spinner should have the capability to be "Loaded" or "Cocked" in either direction.

Then with the push of a button, the Plug Spinner would turn against the "Winding" or "Cocking" and spin in the opposite direction. A very simple tool to use and worth its weight in Gold. A real "Must Have" for any Locksmiths' tool arsenal.

The Plug Spinner , technically, will spin the Plug that is Picked in the wrong direction, so fast in the correct direction, that it will spin the Plug past the Shear Line. That's correct. So fast that it will pass the Shear Line and the Plug will now be still Picked and headed in the correct direction!

Simply, finish turning the Plug with a Flat Head screw driver as you would normally. It is that easy.

Who ever invented the Plug Spinner should be given a round of applause. Fantastic tool.

Can you tell that I like the Plug Spinner? Indispensable!

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Again I will say;

The Plug Spinner technically will spin the Plug that is Picked in the wrong direction so fast in the correct direction, that it will spin the Plug past the Shear Line.

We will presume that the Plug is Picked, but in the wrong direction.

I will first start by spraying a light lubricant into the Keyway.

I will then turn the Plug so that the Keyway is either in the Ten O'clock position if I want the Plug to travel Clock Wise or the Two O'clock position if I want the Plug to travel Counter Clock Wise, depending on which way I want to turn the Plug in order for it to pass the Shear Line.

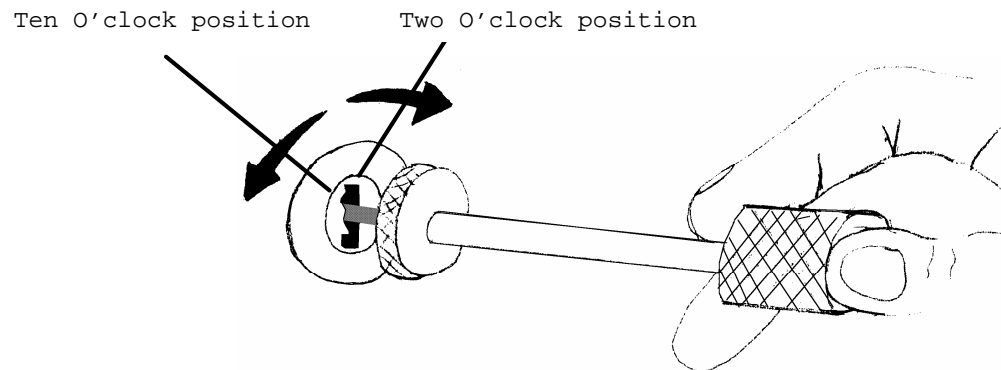
I will "Load" or "Cock" my Plug Spinner in the correct direction.

When the tool is cocked, it will be turned and cocked in the opposite direction of the desired Plug travel. If the Plug is to turn Clockwise, then the tool is loaded Counter Clock Wise.

When the tool is "Fired" the spring steel will spin back toward its neutral position.

After the tool is cocked, I then gently insert it into the Keyway and when I am ready, I push the button and, "let it rip" ,as they say.

Most of the time it works great. However, sometimes the Plug will Lock back up and you will have to Re-Pick.



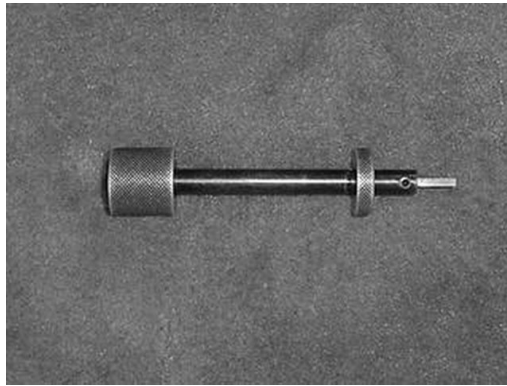
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I would like to add this note:

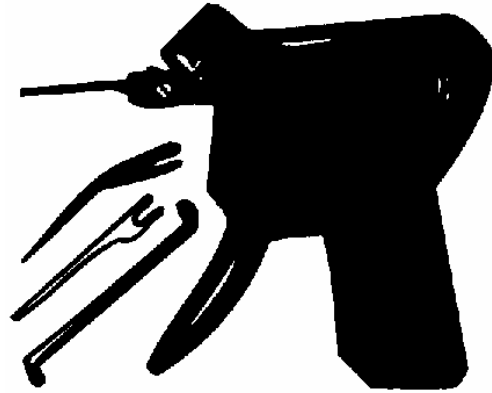
When the Lock is Picked in either direction, always try to finish turning the plug with a flat head screw driver. If it will not finish turning and unlock the Lock, then I will spin it the other way. Again use a screw driver to finish turning and unlocking.

Many times I have found that after spinning the cylinder, the Lock would still be Locked. And a little gentle assistance from a screwdriver would finish the Un-Locking Process.

Before you spin the Plug, spray it with an ample dose of light lubricant.



Pick Gun Operation



If you insert the correct cut Key into a Keyway, but do not turn the Key, the Lock will never open. Like wise with the Pick Gun.

If you insert the Pick Guns needle into the Keyway and pull the Pick Gun trigger, the Pins will jump in their Chambers at one time and that is all. The Pins might all actually be at their correct Shear Lines at the same time, but nothing will happen without the Plug being turned.

This is where the Turning Wrench is needed.

Notice the different phrase Turning Wrench and not Tension Wrench.

You should already know how the Tension Wrench applies Tension continuously during the normal Picking process.

Everything changes now with the Tension Wrench (Torsion Wrench) and Turning Tools. There is a notable difference between these tools.

The Turning Tool (Torsion Wrench) is not applied continuously.

Pressure is only applied at a moments time with the Turning Tool.

The Pick Gun works on Kinetic energy.

It raps up all the Pins up at one time. As the Pins go past the Shear Line, that is when you turn with the Turning Tool (Torsion Wrench). All the Shear Lines hopefully will fall into the shear at the same time. Knowing **exactly** when to turn the Torsion Wrench and catch all of the Pin Stacks at the correct moment is the skill that needs to be learned.

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Kinetic energy is displayed through the knocking of the Kinetic balls.



First spray the Lock with a lubricant such as WD40. Insert the Pick Gun Needle into the Locked Locks' Keyway. When you do insert your Pick Gun Needle down the Keyway, insert the Pick Gun Needle below the Pins so as not to push the Pins up as you slide the Pick Gun Needle in.

The Pick Gun Needle must not be pushed too far back into the Keyway. It might just bind against the back of the Lock and fail to strike the Pins correctly.

Turn the Knob Dial of the Pick Gun so that it is turned all the way to the lightest Kinetic position.

Insert your Turning Tool, either into the top of the Keyway or at the bottom of it. It also matters which way the tool is to turn the Plug; Clockwise or Counter Clockwise.

Some Locks Pick easier in the wrong direction; either manually or with a Pick Gun.

If you have inserted your Turning Tool into the top of the Keyway, be sure not to push it in to the Keyway too far.

You will bind the Turning Tool against the first Top Pin.

Be sure to leave room between the Top Pin and Turning Tool.

Make sure that the Turning Tool is not obstructing the Pick Gun Needle in any way.

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Slide the Pick Gun Needle into the Keyway. On some Keyways it is necessary to slide the Pick Gun Needle at an angle down the Keyway. Keeping the Pick Gun Needle straight down into the Keyway, pull the Pick Gun trigger.

As you pull the trigger, with each click, turn the Turning Tool.

After the trigger pull and just after you have applied pressure to your Turning Tool, (for about 1/10 second) release any pressure from the wrench starting over.

Click, turn, release. Click, turn, release. Click, turn, release. This is a rapid motion.

Your turning of the Turning Tool should be less than 1/10 of a second after the click.

When my finger has just reached the end of the trigger pull, is when I turn the Torsion Tool.

If one were to watch me, the observer would think that I was turning the tool and pulling the trigger at the same time. I am not. The turning is just a second behind.

After I click and turn three or four times, I turn the Knob on the Pick Gun two turns which tightens the Kinetic Tension to the Picking Gun Needle. It will now slap the Pins a little harder.

Click, turn, release. Click, turn, release. Click, turn, release.

Your turning of the Turning Tool should be less than 1/10 of a second after the click.

Not at the same time. Just a second behind.

After I click and turn three or four times, I turn the knob on the Pick Gun two turns which tightens the Kinetic Tension to the Picking Gun Needle. It will now slap the Pins a little harder.

Continue with this procedure until the Knob on the Pick Gun is tightened all the way.

Wind it back to the lightest setting and start all over.

Or better yet, continue with this procedure until the Plug turns in the Shell.

I suggest trying a Schlage Construction Grade Knob. I like this type of Knob for all lessons.

Re-Keying, Picking, Pick Gun etc...

This turning takes practice as does all phases of Locksmithing / Security.

When it is mastered, unbelievable ! \$\$\$\$.

Get in and get out.

I have found that a Ford five Pin Door Lock will Pick easily with the Pick Gun.

However, the Chamber Caps may be knocked off due to the hard rapping of the Pins.

Assorted Lock Picks

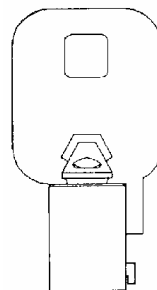
Gas Cap Pick

This tool is made specifically for Picking the Locks on Locking gas caps.



Tubular Lock Pick

This tool is designed specifically for Picking open Tubular Locks.
This is a 7 Pin Tubular Lock Pick.
The Tubular Locks and Picks come in different Pin configurations.
Soda machines, vending machines, pay washing machines, vehicle locks
etc., utilize this type of Lock. This can be a very lucrative field.



When the Tubular Lock Can not be Picked, it then
becomes necessary to use a "Special" Tubular Hole
Saw/drill.

Tubular Key



OD .377"-9.6mm
ID .312"-7.9mm
(BRASS)
1137B

137B

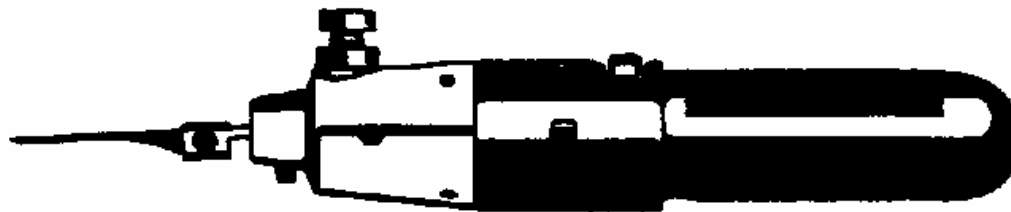
Tubular Hole Saw/Drill

Low revolutions. Only several cuts are afforded by this cutter. They work great. I charge for drilling out a Tubular Lock. Only a few can Pick it and if not drill. \$\$\$.



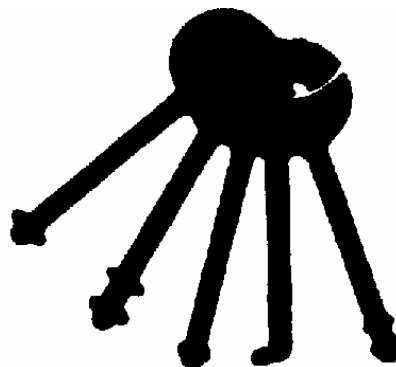
Electric Pick

This performs the same similar function as a Pick Gun, but it is electric. It Rakes/whacks the Pins and Wafers with kinetic energy.



Warded Pick Set

This set of Picks is designed specifically for Picking open warded padlocks. These five Warded picks will open just about all of the warded Padlocks one will encounter. I have never come across a warded Padlock that I could not open with this set.



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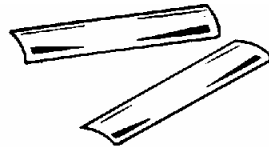
Sesame De-Coder

This is a Sesame Decoder/Picker. It is used by sliding the Sesame between the wheels of a briefcase Combination Lock and turning the combination wheels so that the Decoder will fall on the flat spots of the wheel being De-Coded. The number on the wheel is recorded and the process continued for each wheel. If the Lock fails to open after the De-Coded numbers are dialed, it may be necessary to add (9) to each number and try again. Or maybe add (11) to each number.



Shim Stock

I thought that Shim Stock should be displayed here. Shim Stock is used for Shim Picking a Lock. It is in a sense Picking, it is named as such, and therefore I placed it here. You will find the correct application for Shim Stock under the By-Passing Locks Lesson.



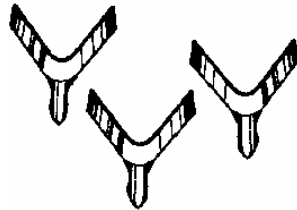
Padlock Shims

There are special Shim Picks made for Padlocks too. The Shim is triangular in shape and slides down where the Shackle meets the Padlock body.

Padlock Shims are slid down between the Shackle and the Lock Case in order to free the Shackle from the Locking mechanism within.

The Shim Stock is wiggled and manipulated in order to separate the Shackle.

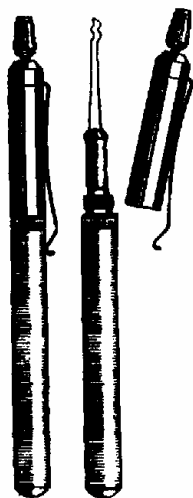
The Padlock Shims come in assorted sizes.



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Assorted Pick Types and Shapes

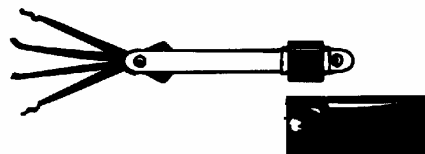
Pick Pen Set



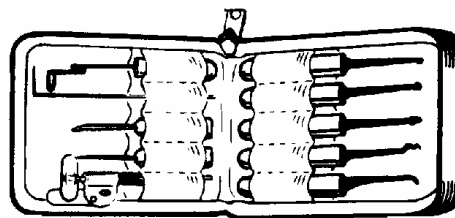
Pick Set



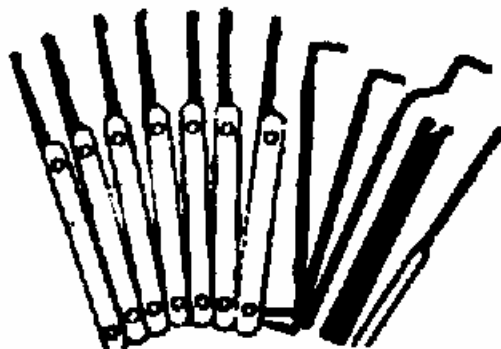
This is a Pen Pick Set.



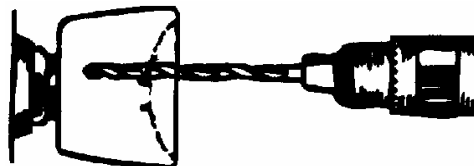
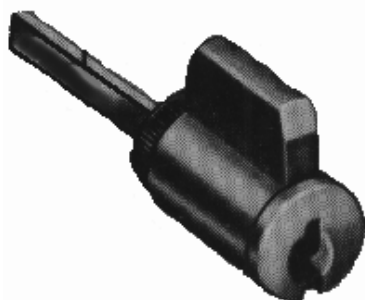
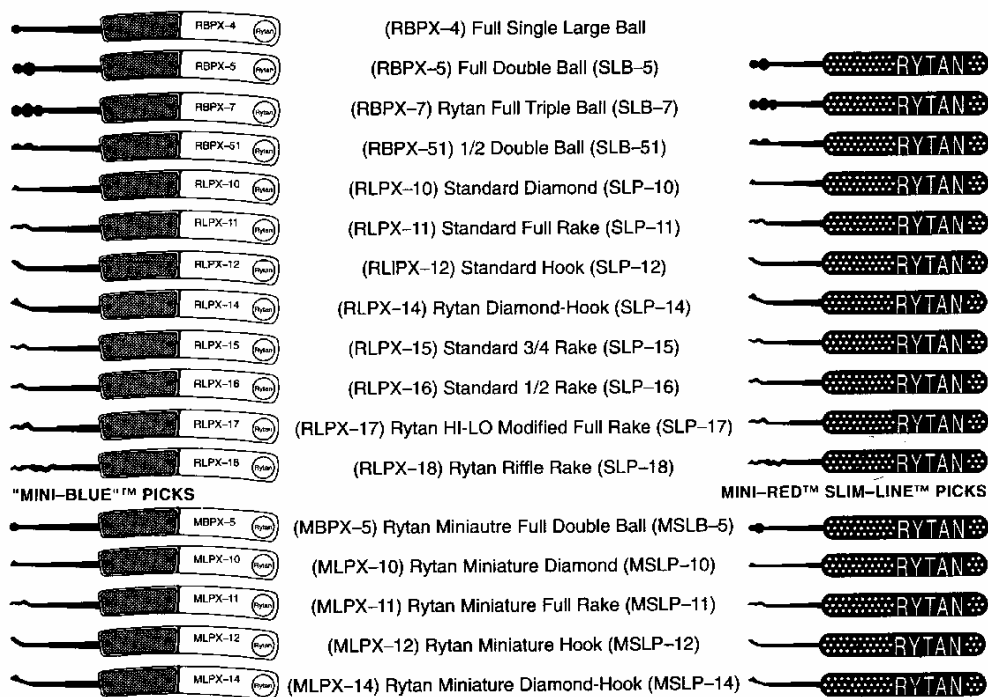
Pick Set



This is a Large Pick Set.



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Automotive Double Tipped Tension Wrench.

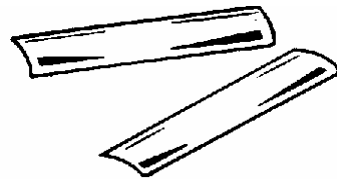
This Tension Wrench allows the top and bottom wafers to be exposed and accessible to picking at the same time as when attacking a double sided foreign automobile.



Shim Picking

Shim Picking is an essential skill to know if you are to service Pin Tumbler Locks. Shim Stock is usually bought from a Distributor.

However, some creative Smiths do make their own. Shim Stock is as thin as tin foil, but a lot more rigid. The Shim Stock is almost an inch long and a quarter of an inch wide. It is slightly Convex down its entire length.



Shim Stock is used when you have a Plug out of a Knob, Lock, Dead Bolt, etcetera, and you do not have a Working Key.

The Tail Piece and or any screws, clips, snaps are removed from the back of the Lock Plug. If we had the Key and inserted it into the Plug, unlocked it and turned, the Plug would be free to come out of the Shell as in the phrase Re-Keying.

Since **we do not have a Key**, we will Shim Pick.

In the jaws of my vice, I gently hold the Locked Plug and Shell.

This is done by applying gentle force to the Lock Shell sides. Do not over tighten it. Tighten just enough to hold the Shell firmly in place. Do not crush or bend the Shell. Gentle. The jaws should be tight enough when you start to work with your tools, the Shell should not move in the vice jaws. Should the Shell move, tighten the jaws a little more. Gently.

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Tip:

When **shim picking Arrow Knob Lock Plugs**.

While holding the Shell in the vice, gently Squeeze a little harder than usual on the sides of the shell. Gently.

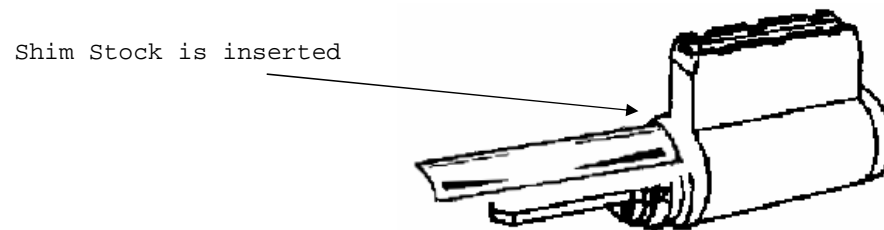
This slight extra pressure exerted onto the sides of the plug will allow the Shim Stock to slide in at the rear of the Plug and Shear Line a lot easier when done correctly.

I usually have the Plug with the Keyway and Face, facing to my right and the tailpiece end to the left.

Now spray a lubricant down into the Keyway such as WD40 brand.

I then take a piece of Shim Stock and hold it in my left hand. (I am right handed).

I then insert the Shim Stock into the back of the Shell at the Shear Line where the Plug and Shell meet at the top of the Plug.



The curve of the Shim Stock is a perfect contour with the curve of the Plug.

The Shim Stock will only slide in as far as the first Pin Stack it reaches. When it comes into contact with the first Pin, the Shim Stock will stop its forward motion.

As you gently continue to push the Shim Stock against the Pin Stack, you rake the pins with your Rake Pick.

The Shim Stock should not buckle or bend under your slight finger pressure. Gently.

As you rake, you will feel the Shim Stock move forward ever so slightly.

The Shim Stock has just separated the Top Pin and Bottom Pin at their Shear Line.

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*** Note ***

It is possible that you separated a Bottom Pin and a Master Pin at their Shear Line. If this is the case and after the Plug is removed from the Shell you may not even be aware that this one Master Pin exists.

This is the very reason that you should Pin Top Pins and Bottom Pins when Re-Keying. If you did not Re-Key the Top Pins in this case and you put the Plug back in with the Master Pin still included in a Pin Stack you would be diminishing the Security of the Lock.

Now, more than one correct operating Key will Work The Lock.

The Shim Stock is now sandwiched between the Pin Stack (s).

Continue to push the Shim Stock in until it is stopped by the next Pin Stack.

Gently, still raking, separate another Top Pin and Bottom Pin.

Raking the Pin Stack (s) and pushing the Shim Stock at the same time. Gently.

The Shim Stock may stop its forward motion, but that is all right. Sometimes you may have to pull the Shim Stock back one or two Pin Stacks.

On several occasions the Shim Stock would stop abruptly in the Plug and would not separate the Pin Stack at all.

I take the time to extract the Shim Stock and examine it.

Usually, the very tip of the Shim Stock would be damaged. Bent.

I then have a choice.

I either snip the Shim Stock back (cutting off the end) or use a new piece. Remember that the Shim Stock is double ended. Twice the use.

I usually use a new piece or end as it may be.

My snipping would be never smooth enough at the end I snipped to continue using the same piece.

As you rake and Shim Pick keep trying to turn the Plug.

Continue until the Plug turns.

You have now Shim Picked the Lock. Lock the Plug and Shim Pick it again.

Drilling is a Lock Bypass Method

Dissecting Drill Bits

Before we drill anything, let's take a look, dissect and have some respect for drill bits.

Tips:

Following is some basic advice for working with drills and drill bits:

- *First and foremost always wear your safety goggles.
- The larger the drill bit size, the slower the speed used to drill
- Stop using a dull drill bit when feed-through appears to go down
- Never use a bent or damaged drill bit
- Remove residue buildup on wood drill bits
- Don't drill a hole past the flute length
- Drill a pilot hole first for large holes in metal to avoid orbital or elongated holes
- When using masonry bits in concrete, make sure to stop as soon as you hit metal as the heat will destroy the bit. Then use a rebar (steel rod) cutter bit to cut through the metal rebar. Use metal detectors, such as the MetalliScanner™ 6.0 from Zircon to detect metal in masonry. Avoid drilling blind in masonry.
- When using a drill bit to drill steel which is backed by concrete, the moment the drill passes through the steel and contacts the cement, cease drilling.
- Minimize heat buildup by making sure hammer drill shanks are lubricated per the manufacturer's instructions. Hot bit shafts may break.

Be Sharp when Sharpening

It is important to remember that a drill bit begins to wear as soon as it is placed in operation, with the maximum drill wear taking place at the corners of the cutting lip. One of the worst enemies of bit wear is excessive heat from underfeeding or over speeding the drill bit.

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Even with proper pressure and speed applied, drill bits will suffer wear regardless. The installer is still faced with the choice of replacing or sharpening the worn drill bits. A good sharpening program can save the Installer money in replacement drill bits. It is very easy to sharpen ones own drill bits and tools.

Drill sharpening machines, such as the Drill Doctor™, are economical, easy to use, and can consistently return both HSS and masonry drills to a manufacturers specifications.

I use a drill sharpening jib which attaches to the side of my grinding wheel and it is excellent. I had one other locksmith as well as a carpenter I knew come to me and request I sharpen their drill bits and chisels.

Care should be taken when sharpening long flexible-shaft bits in a machine. You have two choices; either use the long shaft adapters where the bit can be temporarily removed or have another person assist in holding the long shaft bit as it is being sharpened in order to maintain the correct drilling angle. Freehand filing sharpening techniques on bits such as the auger, spade and multispur can be learned with a little practice.

Saw drills are excellent for very fast and smooth cutting of irregular openings in material such as wallboard.

Drill Bit Types

Augur Bit

Good for drilling large diameter, deep wood holes. The screw center bites and pulls quickly into wood, while the large cutter and flutes do a very good job of removing chips. Due to the grabbing power of this bit, care must be exercised when using with power drills.

Chisel Point

The central tip of the drill where the removal process starts.

Cutting Lips

Leading cutting edge of the drill point that begins to scoop up the material and make chips

Flute

The spiral grooves that remove drill debris out of a hole.

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Forstner Bit

Forms holes with a flat bottom. This bit has a very sharp cutting rim. Since there is not a central starting point, the bit walks easily, making freehand drilling difficult. However, some installers have been successful in using this bit for making sharp, shallow holes on vinyl-type window configurations for positioning round, rare-earth alarm contact magnets.

Heel

Trailing edge of the drill point.

Hole Saw

This is technically a saw that acts like a bit. It has a centering pilot bit and comes in bimetal versions from companies such as Milwaukee Electric Tool.. Carbide bit versions of the hole saw are available for masonry and are referred to as *Core Bits* and *Rebar Cutters*.

Lands

The flat spiral area separating the flutes

Margin

The sharp edge of the land, which assists in reaming out the hole.

Masonry Bit

This is a hardened steel drill bit with bonded tungsten carbide cutting tips. It is specifically designed for drilling in concrete, brick, block and stone.

This bit comes in three flavors: rotary only, rotary/percussion and rotary/hammer.

Percussion bits (1/8" inch to 1" inch) are designed for light-duty, mechanical hammer drills; hammer bits 3/8" inch to 1 1/2" inches) are designed for heavier, piston-driven rotary hammer drills. SDS shank types are typically up to 5/8" inch in diameter, while spline and SDS-max are used for holes 3/4" inch or larger. Rotary hammer drills can drill up to 10 times faster than lighter hammer drills.

Multispur Bit

Has a spur configuration reminiscent of the round chisel blade on the Forstner, but has a starting center point to reduce walking. Some popular flexible, long-shaft versions of this bit are the ProBore~ from Labor Saving Devices (LSD) and the Piranhbits from B.E.S. Engineering (www.fiberfish.com).

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Saw Drill

A special drill used as a high-speed router-type saw. The cutting action is achieved by pressing the saw drill against the material and using the flute and land action. This allows for very smooth and fast cutting of irregular openings in material such as wallboard. One brand-name system is the Rotozip~ (see photo) zip tozip.com). Various jigs are available for cutting large, perfectly round openings, like those used for mounting recessed speakers.

Shank

The end of the drill bit that connects to the drill chuck. A shank surface can be smooth, as with high-speed steel (HSS) bits or with impact-type drills, or keyed in a ribbed *spline* or slotted drive shank (SDS) configuration to reduce slippage in the drill's chuck.

Spade Bit

An economical, fiat paddle-shaped wood bit for large, coarse wood holes. It has a starter point for easy centering, requires a powerful drill and can be easily field sharpened. A variation of this bit is the Spear~Zit from LSD.

Step Bit

This has the appearance of a child's top with ridges. It allows an installer to size a hole in a metal box or other thin material such as plastic and wood. A distinctive "pop" sound can be heard as the bit steps from one size to the next. This is a very handy bit for every installer's toolbox.

Tin-Coated Bit

This type of bit has its surfaces treated with a titanium-nitride compound, which improves drill life by reducing wear and increasing heat resistance.

Twist Drill Bit

Sometimes referred to as a *high-speed steel (HSS)* drill, it is the most common drilling tool, and is typically sized at less than 3/8" inch. Some installers may be familiar with the long version of this bit, which is known as a Bell Hanger. These drills tend to clog quickly in green hardwood and must be removed periodically to dispose of chip waste. These bits come with a standard or split point, with the latter providing better cutting and start points.

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Drills

I personally like the larger drill with a side handle ("T" Handle) for boring holes into doors in order to install Door Knobs and Deadbolts and smaller drills with Key-Less chucks for drilling and screw driving.

I use a Milwaukee Side Handle Drill for boring holes into doors and my other "drill needs" are performed with a Makita, a Sears drill, and before it was MaClean'd by a thief I used a Black and Decker cordless screw driver for screw installations and during Generals Motors Column Break Downs.

My Makita batteries are \$100.00 and up, so that should be ones consideration.

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Drilling a Lock Open

Sometimes when the Key fails or the Lock cannot be Picked, we will have to Drill the Lock.

Drilling the average Lock is not difficult to do.

We will be dealing with the average house Lock or Mortise Cylinder Lock that does not contain a Hardened face or other Anti Drilling devices.

A small drill bit is needed. About 1/8".

A cordless drill is my favorite, but an electric drill will more than suffice.

You will need your "Hook Pick."

Drill directly at the Shear Line. As you drill into the Plug and Shell, count the small tugs you will feel as you penetrate each Pin Chamber.

With a Five Pin Lock you will feel five tugs. Do not drill too deep or you will drill off the Tail Piece at the rear of the Lock Plug.

Try to turn the Plug with a screw driver.

If it will not turn:

Insert your Hook Pick into the Keyway and try to remove any debris you may encounter such as Pins, Springs and any loose metal.

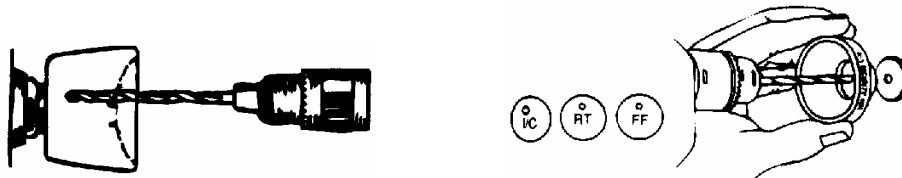
OR

I may run my drill in and out again.

Spray the Keyway well with your WD40 and the injector nozzle (if the spray head does not keep falling apart) and wash the debris out.

Try again to turn the Plug with a screw driver. If it fails to Unlock, use your Hook Pick again. Sometimes I will re-drill. Gently.

Hook Pick and try to open again.

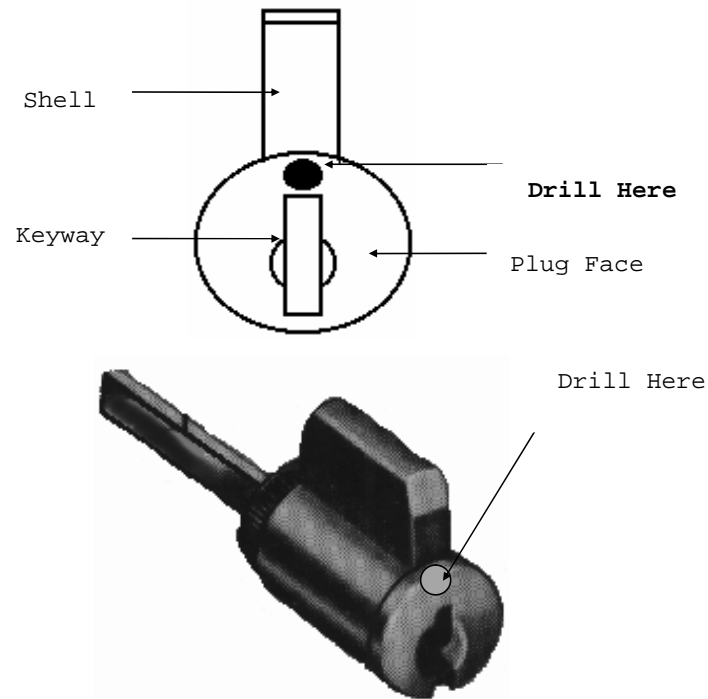


Drill Jigs for a variety of Lock Cylinders are available, but I do not think that they are necessary. Just drill for the Shear line.

Drilling Open the Knob Set / Shell & Plug

The dot / circle indicates where to
Drill for the Shear Line / The "Sweet Spot©".

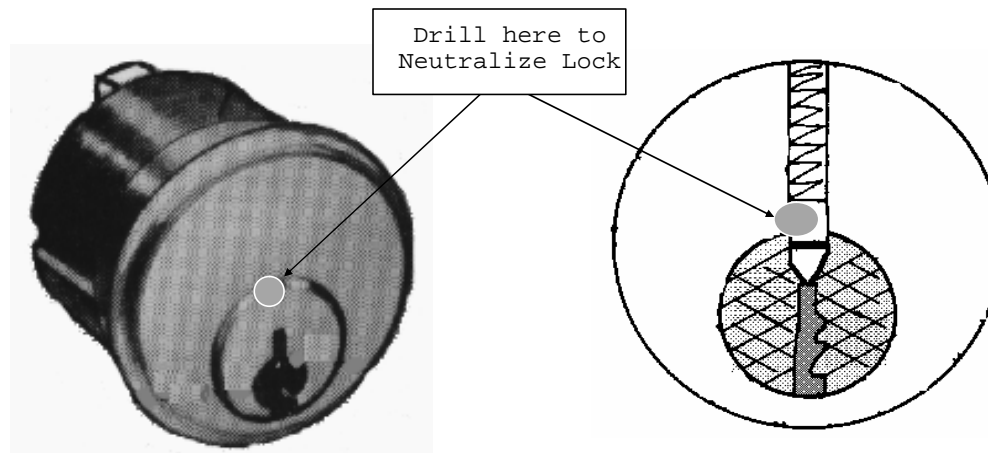
When you drill, you create your own Shear Line, at the Plug / Pin
Shear Line.



Padlocks are drilled open the same way, as are the majority of
Locks.

Drill for and to create your own Shear Line

Mortise Cylinder Shell & Plug



If your drill bit breaks during the drilling, you have a Bit of a problem (no Pin or Pun intended).

Seriously, if this happens you are having a bad day.

You might try drilling a hole along side and or just underneath the original drilling hole. However, you will not be able to drill the drill bit out. You need something harder than the drill bit itself to drill it out.

After you have drilled along side and or underneath, you will use a dentist like hook tool to pick, probe and extract the broken drill bit piece.

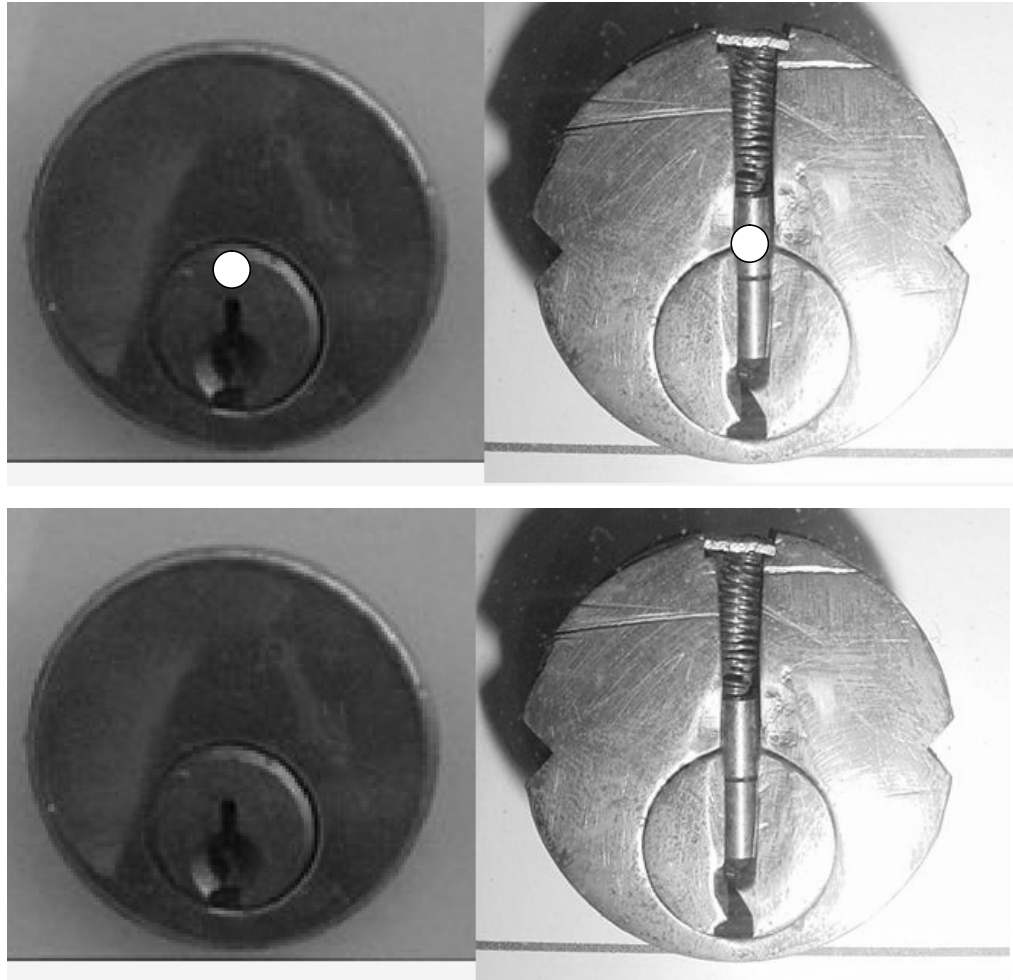
The broken drill bit must be removed in order to free the Shear Line and continue.

Sometimes when drilling a Shear Line, especially Interchangeable Core, the hole seems that it needs to be drilled larger and larger. That is all right.

Be persistent and do what you have to do to complete the job at hand. Bigger and bigger and bigger. Oh well.

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Drill where the white spot is in the picture, in order to create a shear line.



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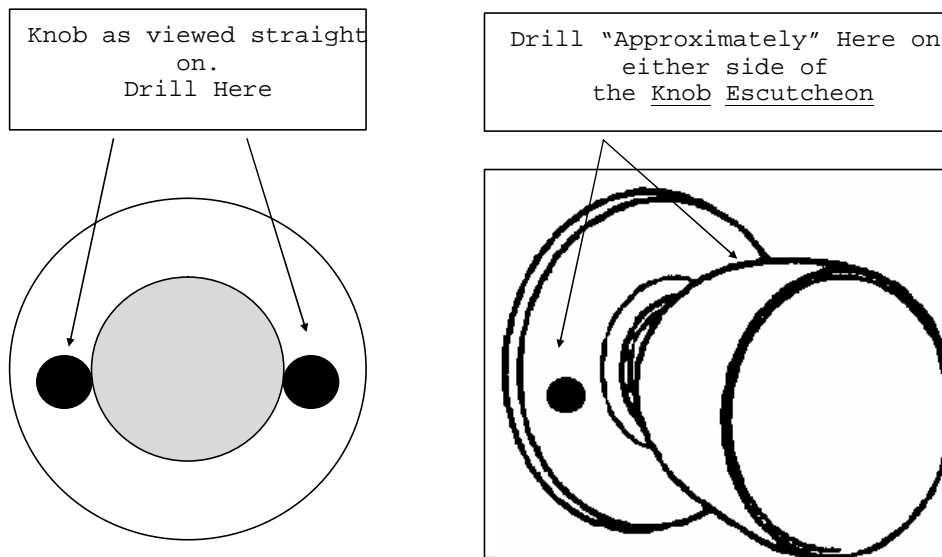
Here is another Lock By-Pass method

I use this method when there is a Lock out and when dealing with faulty Latches.

I start from the outside of the door, and with the correct knowledge of screw placement, it is possible to; drill through the Rosette, Escutcheon, or face of the Lock by drilling the inside mounted Lock screws. The 1/4" drill bit turning Clockwise, coming in contact with the Lock screw, will turn the Lock screw

Counter Clockwise on the inside, thus freeing it on the inside.

I have used this technique with Rim Cylinders also on doors with a Night Latch and Rim Cylinder type Lock.



If the screw does not turn, drill the screw completely out.

I have used this method on several occasions. It does work.

Once the screws are removed, remove the Knob sections or Lock faces and proceed to encounter the faulty latch.

Some Deadbolts, such as Arrow Double Deadbolts have a cover plate that rotates as the Key is turned. This exposes the screw. In a normal Locked position, one would not be able to remove the screw.

If the screw does not turn, drill the screw completely out.

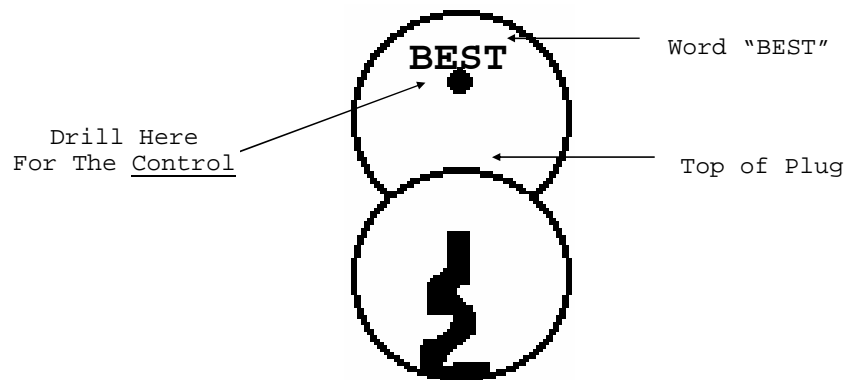
Drilling an Interchangeable Core

IC Drilling for the Control Line

The Control Key is the Key that Removes the Core from the IC Shell.
If you have to drill but would like to Decode for the Control Key,
try the following:

- Insert a Blank into the Key way. This will push the drivers up and out of the way.
- The IC May be drilled using a 1/8" drill bit and drilling below the "E" & the "S" in "BEST." Experience will dictate where on an unmarked Core.
- Count the Pin Stacks as you drill and drill only through the number of Pin Stacks that you counted.
- Apply turning pressure to the Plug while removing the drill bit.

In this case you would be trying to go for the Control.



Where you drill from the top of the Plug to the word "BEST" will dictate your intentions.

The reason I say this is that, by drilling in certain locations it is possible that one may Decode the Pins in the Pin Chamber. Drilling the Driver, Control Line or Drilling to Open, etcetera.

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Drilling to Unlock the IC

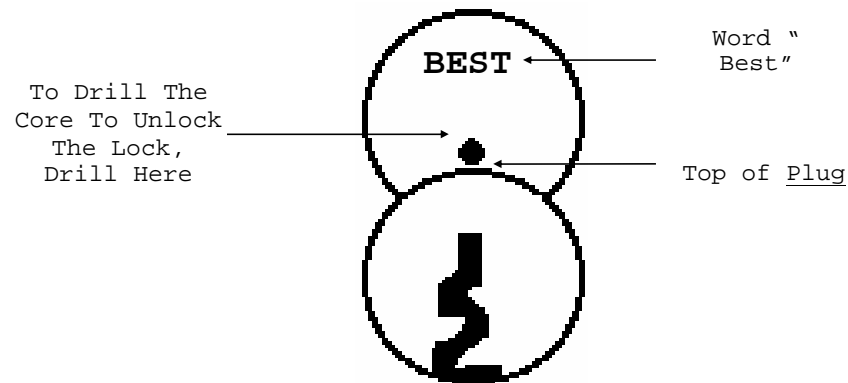
If you want to drill the Interchangeable Core to Unlock the Lock, I would recommend drilling lower and closer to the Plug.

The Lock would be Unlocked, but you would not have a Core Key.

The Core Key is very important, especially if you are to work on more than one IC.

Sometimes you will find yourself drilling and re-drilling some Cores, over and over. The hole you drill gets bigger and Bigger and BIGGER and oh boy what a mess.

Just take it slow and easy and you will be all right.



Everything does not work perfect every time.
You will have good jobs & bad jobs.

Broken Key Extraction

The Key Grooves themselves are helpful for a Key Extraction.

A Key Extraction is performed when the Bow of a Key has broken off and the Blade of the Key or tip of the Key is left behind in the Keyway.

Sometimes the tip of broken Key is so far down inside the Keyway that you must either dismantle the Lock or drill the Lock out rendering it useless.

If the tip can be seen, there is a good indication that it may be Extracted. Toothpicks, bobby pins, paper clips along with other goodies may have to be extracted from a Key way. Wax too!

Supposedly someone was trying to Impression a Key. I laugh when I tell these episodes.

Some pieces such as tooth picks may be pushed through the Lock and out the other side. However, on some Locks such as Arrow that come with a little Dust Disc at the rear of the Plug. If this Dust Disc is in place, one may not be able to push the debris through and out the other side.

I permanently remove this Dust Disc when I install or work on this type of Lock.

This piece is actually of little value, except to the manufacturer.

I once used a Dremel type tool to drill an extremely small hole in the middle of the Cross Section of a broken Key which was down the Keyway, in an in column ignition switch (a ten system Ford).

After I drilled the hole in the center of the broken Key cross section, I then screwed in an Extractor and removed the broken piece.

It almost was not worth the time and aggravation.

The type of Extractor shown below is threaded down the groove of the Key to be Extracted. Then a good solid tug, or two, or three is needed.

I might use vise grips to hold the Extractor itself and discard the fancy handle. The tips are replaceable.

Some are stored in the vice type tool itself.

Extraction tool sets are yet another way Extractors are available. You will find them all useful.

BROKEN KEY EXTRACTOR



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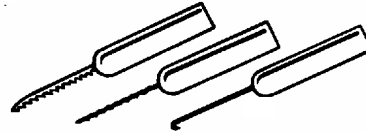
When the tip is extracted you may put the Bow and tip together and Create A New Key From A Broken Key.

Where the two pieces joined together, may not copy on a Key Machine correctly.

This is where you might have to file using your magnification glasses.

Maybe even a little Impressioning is needed..

BROKEN KEY EXTRACTOR SET



If the Bow of the Key is unavailable, you may line up the broken tip and the new Blank on your Manual Key Machine and duplicate what you can.

Without a Shoulder to gauge the Blank , you will have a small problem.

A Broken Key Extraction

An Abus Discus Lock and the Broken Key Extractor

An ABUS Discus Padlock has had one of it's working keys broken off inside the keyway.

The key is broken off flush with the plug face.

There is not much to work with. This is where most people will Push and Probe the broken key possibly pushing the broken tip deeper into the lock. Paper clips are used and other objects until the key and or keyway is damaged.

The broken piece could not be removed until the Keyway was in the up right position. The shackle was in an open position. I first used a small pair of vice grips in order to grab the open shackle and swing it into a close position.



Figure #1

The ABUS lock may be seen with the broken tip inside the keyway.

And a set of keys with one working key.

The Broken Key Exrtactor is on the lower right of our picture and the extractor tip is on the left. The Extractor tips are stored inside the body of the Broken Key Extractor Tool. **Figure #2.**



Figure #2

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The Keyway is lubricated well with a light lubricant. After the extractor tip is inserted and tightened into the Extractor Vice type tool, we use it as a probe type tool in order to attempt to pull the broken key from the key way.

I actually used two extractors in order to remove the broken piece. I probed with one at the top of the Keyway and one at the bottom of the keyway. I probed each extractor toward each other and pried upward.

Figure #3



I used two extractor tips one at the top of the keyway and one at the bottom of the keyway. I probed and lifted. **Figure #3.**

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If that proves un-eventful, try screwing the extractor tip down the key and keyway. There is usually an entrance of some kind. Try pulling the tip out in this fashion. **Figure #4.**

Figure #4



Probe and pull. Lift and probe. **Figure #5.**

Figure #5



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Probe and pull. Lift and probe. **Figure #6.**



Figure #6

The end result "Hopefully" is the broken key tip in your hand. **Figure #7.**



Figure #7

This is a good thing. **Figure #8.**

Figure #8



Cutting a Key From a Broken Key

With the manual Key Machine turned off.

To gauge the extracted piece and new Blank by the tip, put the tip of the extracted original Key in the guide vice so that the tip of the extracted piece sticks out a little.

Place the Blank in the cutting wheel vice so that it sticks out a little.

Both Keys should be flat to the bottom of their vices.

Then clamped lightly.

Move the jaws over as if you were going to copy and cut the Keys.

The tip of the duplicating Blank should just touch the cutting wheel.

As the duplicating Blank is touching the cutting wheel, the extracted original Key tip should also be touching the guide tip. If one tip touches before the other, loosen this vise and move the Key tip over until both tips touch the guide tip and cutting wheel at the same time.

Every Locksmith is Either Part Machinist or Knows One.

You should be aware of the many tools that are needed in this trade.

My practice was and still is to purchase at least one new tool a week.

When ever I place a Lock order, I am sure to purchase a tool at the same time.

Whether it is a drill bit, WD40, chisel or a spring at the local hardware store.

Or a unique Locksmith tool that is special ordered hard to find (if you can even get it), you need to keep building your shop and purchasing tools and information.

I have purchased Key machines in the thousands of dollars and assorted hand tools and books in the hundreds of dollars each.

Out of necessity I have invented tools that I have won prizes for in international contests.

You must be creative. Your efforts will be worth it.

Protecting the Home And Business

With Knob Sets, Deadbolts and a Proper Installation

A quality Knob Set installed on each door is the first line of mounted physical defense for a Residence or Business.

The Knob should be mounted on the door correctly and be properly functioning before installing a Deadbolt.

The Finish and Function of the Hardware should be considered when installing the Security Hardware.

Both installations of Knobs and Deadbolts are basically the same and usually the Knobs are already in place on the door.

The Door Knob or Knobs must be working and Latching correctly before Boring holes and installing the Deadbolt or Deadbolts.

If they are not, everything will be off of alignment and you will have installation problems.

We will start by checking the action and proper workings of a Knob and then proceed with installing a Deadbolt.

Knob Set Mounting Height

The Knob Set mounting height from the floor should be measured from the floor to the Knob Set. The standard Knob Set height is approximately 36" from the floor and a Deadbolt approximately 42" from the floor. You should check the A.H.J. and A.D.A. for any Commercial applications.

Try to maintain the same mounting height and Backset throughout your hardware mounting. The consistent mounting height and Backset are pleasing to the eye.

Installing Door Knobs and Deadbolts

Knob Set & Deadbolt Installation Tools

- 1" Chisel
- 1/2" Chisel
- 1/4" Chisel
- 2 1/8" Hole Saw with Pilot Bit
- 1" Hole Saw / with Pilot Bit
- 15/16" Spade Bit
- Color Wax Sticks / Optional
- Drill, (Sturdy With Side Handle)
for Hole Boring
- Heavy Duty Extension Cord
- Hammer
- Measuring Tape
- Pencil
- Scribe, or Awl type Pick Tool
- Tool Box

Optional

- Electric Socket and Lamp Adapters

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Exterior Doors

Doors are available in four basic varieties;

Steel;

- like those used on commercial doors.

Metal Sheathed;

- Hollow core, foam filled, with the entire door covered with a sheet metal.

Solid Core;

- Particle board covered with veneer)

Hollow Core;

- Not recommended for exterior doors. Very flimsy. A low cost door. (I call these cardboard doors).

One should have good quality Doorknob's that function properly, on all doors as well as quality Deadbolts installed.

**** The Doorknob's must be working correctly before installing Deadbolts.***

Doors with Glass on or around the frame of the door, or the door itself, should constitute a Double Cylinder Deadbolt.

Anyone can break the glass, reach in, and Unlock the door if a Single Cylinder Deadbolt is used.

The type of doors which has two or three windows located near the top are of less concern.

The Key should never be left in the inside Cylinder of a Double Cylinder Deadbolt. Anyone can break the glass, reach in, and Unlock the door to gain access.

If one is to install Double Cylinder Deadbolts, fire should be a major concern.

If a Double Cylinder Deadbolt is used and fire is a concern, a Key placed by the floor in a special location will help the situation. All family members should be made aware of the location of this Key, and the Key is never to be used, except for an emergency.

Should a fire ensue, one may crawl on the floor and acquire the Key from its concealment.

The exterior door, leading from the garage into the house, should have an Entrance Knob installed on it regardless of an enclosed garage with an overhead door. This is a flaw I have witnessed all too often. Many times this door will have a Passage Set installed on it instead of an Entrance Knob.

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Latches

The Latch is the part which moves in and out from the Knob Set to Secure or free the Door. When in a secured position, the Latch rests in the Strike Plate located in the door jamb. The latch should move in and out freely and easily. If not, take the Knob Set apart, expose the Latch and spray thoroughly with lubricant and check the Latch movement again. If it is still not working correctly, remove the two screws on the edge of the door and remove the Latch.

Sometimes a screwdriver pried against the bored Knobs Mounting Hole and the Latch will push it out. Do not damage the door around the bored Knobs Mounting Hole edge.

Some Latches after removing the two Door Edge screws are held in place with Allen Screws from the Door Edge. You must use An Allen Wrench and loosen these. They are set inside a bit. You must make sure to use the correct size Allen wrench.

Then remove the Latch. (Lori Lock is one brand).

Either use a screw driver and flip the Latch as with a Deadbolt and some Knobs, or you may assemble the Lock in your hand. Either way the Latch should have smooth operation.

You will know right away if it is good or bad. It either has a smooth operation or it does not. If not, replace the Latch or the entire Lock Sets if you wish.

The parts, if you purchased the whole Lock Set piece by piece, are more expensive than simply purchasing an entire Lock Set.

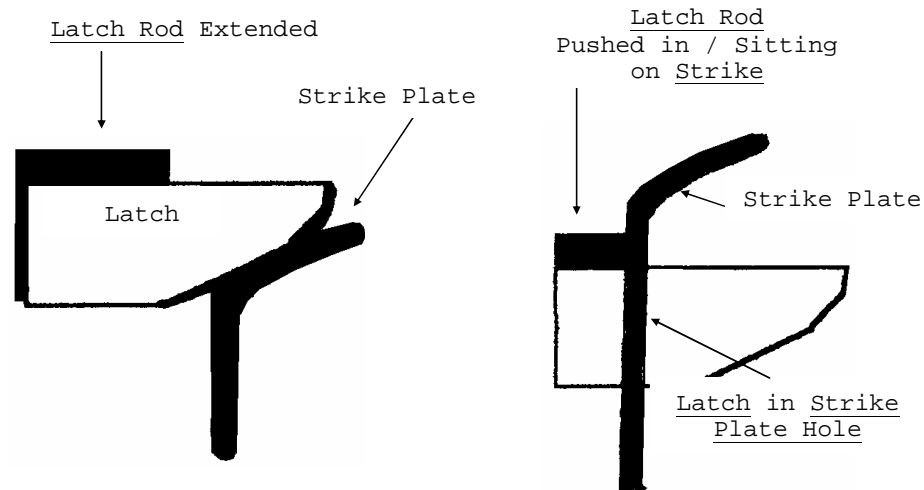
This was the best way I found to have extra parts on hand. Purchase the whole Lock and when you need a part use it and charge for it. You will end up with extra parts, but this is the nature of this work.

Latch & Strike Nexus

The Door Knobs Latch should be seated correctly **In** the Strike.
Make sure the Doorknob's Latch Rod sits correctly **On** the Strike.

By this I mean:

The Latch should fall into the opening of the Strike, but the Latch Rod (little round rod) that travels with and beside the Latch should sit on top of the Strike when the door is closed.



With the Latch working in the correct manner as described above, you should not be able to push the Latch in. It will be rigid.

Try it with the door open. Push the Latch in and notice how you can spring it in and out. Now, push the Latch Rod in with a finger and try and push the Latch in. If it is working correctly the Latch should not move or have limited travel. If it does go inside its' housing, then the Latch should be replaced. If the Knob Sets Latch does not have a Latch Rod then you should purchase a Knob Set which does have this feature.

This action or failing of is what allows the Latch to be bypassed with a charge card or similar material. The perpetrator simply slides the card in somewhere opposite the Knob Set and Door Jamb approximately where the Latch and Strike are located and slides the charge card up and down and in and out. If the Latch Rod is not seated correctly on the Strike the Latch may be retracted by the plastic or flexible card and entry will be gained.

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If one finds the Latch Rod is missing, it usually has been broken off on purpose so someone may gain entry at a future time using a charge card or similar bypass device.

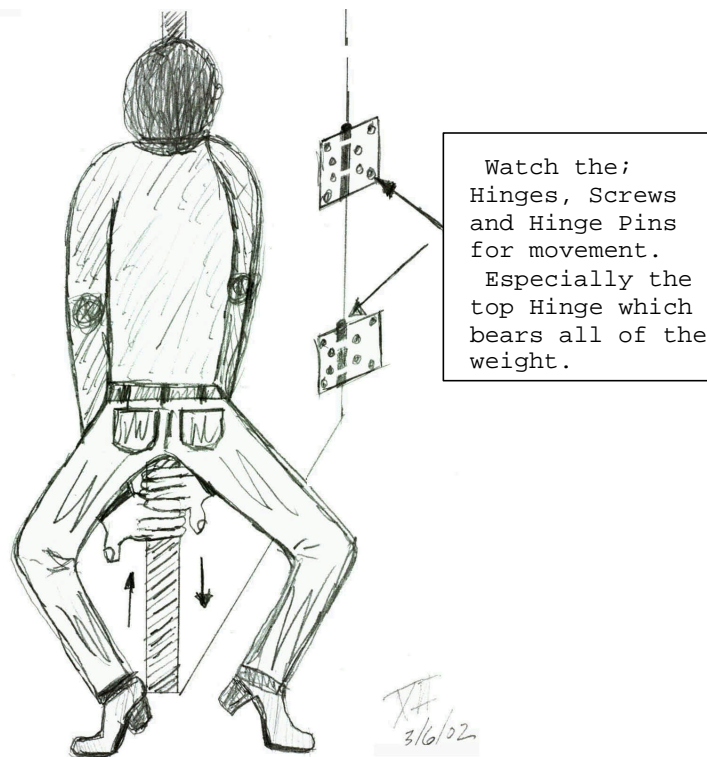
Another thing to look for when checking the operation of a Door Knob and or deadbolt is for Hinge Play®. If the Latch does not enter the Strike correctly it may be due to the door sagging. A sagging door may be caused by Hinge Play®.

One way to check for Hinge Play® is perform the following test.

Open the door and straddle the door by the middle of the door edge and attempt to lift and drop the door up and down by the doors edge.

If the door may be felt rising and falling by the lifting and dropping it may be due to the Hinge Screws coming out at the door jamb, stripped hinge screws, and or the hinge Pin itself may be worn.

I must make a note here the hinges and screws on the door must also be tight and secure in order for the locking devices to operate correctly. The Door jamb itself must not shift and move. Everything must be tight.



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One may lift the door and attempt to tighten the hinge screws. If the screws are stripped it is possible to insert a tooth pick or wood wedge into the screw hole before reinserting the screw.

Thus giving the screw some "Meat" to bite into.

You need to fix this problem first in order to have all your door hardware work correctly. Period.

If the door sags and or has Hinge Play© his problem must be corrected before we continue.

It is quite possible a carpenter or construction person is needed.

There is a point to where Locksmithing begins and ends. If you are confident in replacing Door Jambs and Thresh holds please feel free to do so.

After checking the door for Hinge Play© and all is corrected and or all is fine and you discover the Latch still does not enter the strike correctly you may proceed with the following techniques.

You may have to readjust the Strike in order for the Latch Rod to seat correctly. First eye ball the operation by opening and closing the door while looking at the Latch, Latch Rod, and Strike operation.

If they are not operating correctly, proceed as follows.

You would remove the two screws which are holding the Strike in place on the Door Jambs Edge. You may be able to just slide the Strike into the new position. Use your marking awl or scribe and push it into the wood firmly where you will put the new screws in creating a Pilot Hole.

If you do not do this the screws will not go where you want and you will make the old holes even larger. Tooth picks may be used to fill some small holes, but then this reminds me of "Mickey Mouse."

If the Strike does not fit in the already cut out area, you may have to chisel out the Jamb area a little bit.

Mark around the Strike edge with a pencil and cut the area out with a chisel. Always cut across the grain for the end cuts first.

By cutting the end cross cuts first the wood will not split all the way up the door or Door Jamb. The cross cuts prevent the cut from traveling.

Practice makes perfect.

After the Strike has been relocated try the doors Latch and the way it seats. Keep adjusting the Strike if need be until it is right. The Knob and Latch must Function correctly before adding a Deadbolt.

It all sounds real difficult but it actually is not hard at all. Start with a basement door first and gain a little confidence.

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When purchasing a Doorknob or Deadbolt, remember that you usually get what you pay for. If you purchase a \$12.00 Doorknob that is exactly what you purchased. And when you purchase a \$60.00 Doorknob that is exactly what you purchased.

There is a difference. Be aware.

Everyone should know how to work on their own Locks. It always amazes me that people will spend all this money on an item such as a house or vehicle and they know nothing about the Locking systems which secure them. And then they pay me to come and work on their Locks when they could have done it themselves.

It is very natural to have mechanical Locking systems.

In days of old a ring would be worn on the proper (correct) hand, left or right. The special ring being worn, would be inserted into a hole in the Castle wall or door. A type of "Key".

If the ring was the correct ring and worn on the correct hand it might not be lopped off. But if the Combination was wrong the AXE wheedling guard would lop off the perpetrators hand. And ring.

Door Knob and Deadbolt Installation

A Typical Installation:

I am going to start my Installation discussion with both Deadbolts and Door Knobs only because the installation is the same.

The instructions here may be used for installing a Knob Set from scratch or a Deadbolt.

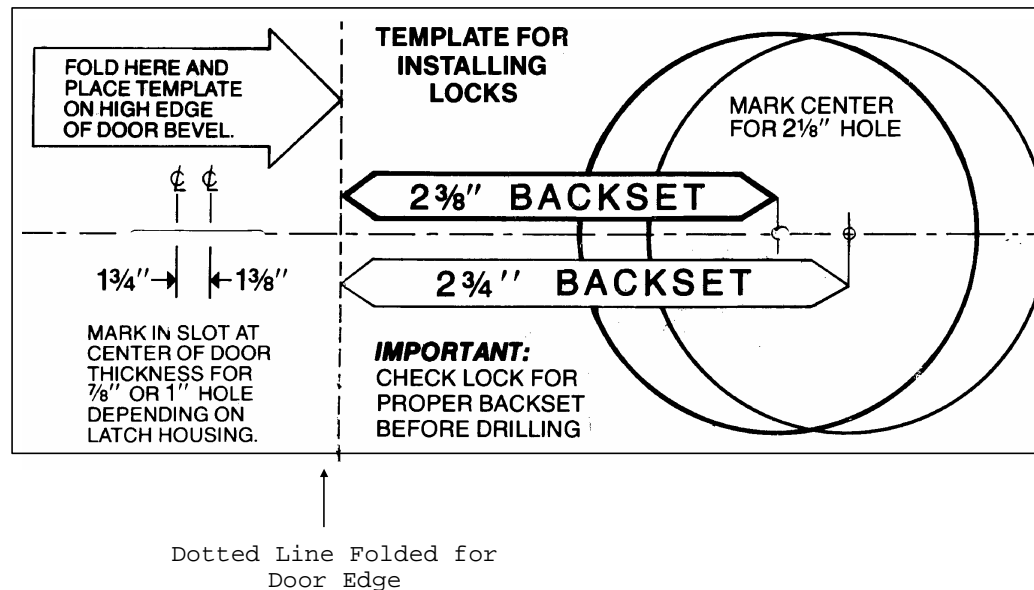
* But remember to install a Deadbolt properly the Door Knobs must be working correctly first.

The instructions are the same except for the installation height from the floor.

The normal Back Set for a (Residential Backset) Deadbolt is 2" & 3/8" and 2" & 3/4" for a Commercial Back Set. The Back Set is the distance from the edge of the door to the middle of the large hole that the actual Lock Set is mounted in.

Most Knobs and Deadbolts come with an installing template of some kind.

Basic Deadbolt and Door Knob Installation Template



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The dotted line is where you fold the Installation template. The smaller folded portion is what would be wrapped around the Door Edge and the longer side wrapped around the door face.

The narrower portion of the Installation Template is used to mark the center of the Door Edge for the proper door thickness and the longer portion of the template is to mark the distance for the correct Back Set. The template may be flipped up side down if need be. And only the center points marked by pushing an awl type tool into the point. To make sure that you scribed the marks square to the door and each mark to each other (there are only two marks scribed). The center of the Door Edge and the center of the correct Back Set)

After marking, slide the Installation Template down the door and keeping it square and flush to the door, see if the two marks line up with each other along the Installation Template's edge.

If not re-mark.

Some of the Inexpensive hardware Latches are adjustable from 2 3/8" to 2 3/4" and back again. This is nice in one respect, that you do not have to have different size Latches in stock as with some Manufacturers.

Mobile homes have thin exterior doors with a metal face inside and outside.

The thin door dictates; a Drive in Deadbolt, or Drive in Latch, versus a Standard Deadbolt, or Standard Latch. The "Standard" is the type with which we must chisel the Door Edge face as in our discussion.

You do not have to chisel for the Latch Face with a Drive In Latch.

However one must be aware that the "Drive in Latch type" is available, and in assorted finishes, and sizes.

Tip:

When I am working on a door face or Door Edge I will stuff the tip of my shoe under the bottom of the door in order to secure the door and hold it steady as I work on the door.

The Lock Set Mounting Hole and Door Preparation

The large Cross Bored Hole for the Residential Knob Set or Deadbolt to be mounted in is not only 2 & 3/8" back (Back Set) from the edge of the door, but it is 2 & 1/8" diameter.

This 2 & 1/8 " diameter hole is bored with a 2 & 1/8" Hole Saw. It is bored using a Pilot Drill to guide it.

I like to bore the larger size 2 1/8" hole because you may install other types of Deadbolts and or Knobs later should you wish.

Schlage uses a smaller mounting hole for the Deadbolts housing.

However: they provide an expansion ring which is used with the Deadbolt to take up the space around the Deadbolt should the mounting hole be bored to 2 & 1/8".

If you bore the smaller hole it is more difficult to switch to an Arrow or other brand Lock later if you should desire to later. If this is the case, the hole must be re-bored. This requires a special hole Boring kit and is tricky. That is a lesson in itself. And if the door has a steel face, forget trying to enlarge it practically.

Start with the bigger 2 1/8" hole.

Wooden doors may be corrected if bored wrong. A special jig, some practice and experience is needed.

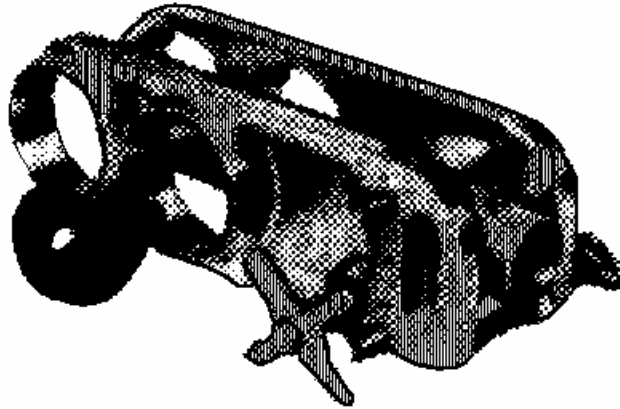
I bought a \$400.00 Knob Set Boring kit. Worth it's weight in gold for Re-Boring.

The kit utilizes a Bit & Brace type unit which clamps to the door. You may use the jig and bore the complete Knob Set and or Deadbolt Mounting Holes from scratch or you may re-bore holes with it. I made big money with this jig just Re-Boring holes. It utilizes manually operated Spade Bits and brace.

You really can not correct someone's poor hole Boring any other way. I would charge \$25 to \$35 to re-bore an existing crooked hole.

The Boring jig is clamped in such a way that you do not need to stop and drill from the other side of the door in order not to split the wood. With this tool you simply bore straight through and out the other side.

It will not splinter or tear the wood.



A very simple jig to use, and the only way to do this type of Re-Boring job. \$\$\$.

Oh, you can not bore steel faced doors, wood or plastic only.

Moving on.....

Any Knobs, Deadbolts, and or other Security Hardware should be mounted with the same Back Sets. It looks esthetically better.

If the Knob or Deadbolt appears to be closer to the edge of the door than the other, they are.

They most likely have different Back Sets.

There is not much you can do. Just use the same specifications as the existing hardware when repairing and installing the new hardware.

Try to keep everything uniform. It looks professional.

Most homes are 2 3/8" Backset and 03 (Brass). However; ranch houses may utilize 26D (Brushed Stainless) and in Tulip not Ball or Plymouth.

There was a builder in Framingham Massachusetts who installed Knob Sets that were about 12" in from the edge of the door. A 12" Backset.

It looked to me like the Knobs were in the middle of the door and the leverage was way off. The Latch would be a normal Commercial Backset 2 3/4", but there was an extension connector attached to the Knob Set Latch. This extension allowed the Knob Set to be mounted 12" in from the edge of the door.

I always wanted to acquire one of these special extensions for my Locksmith arsenal, but I could not find them for sale anywhere.

And when one repaired a defective Knob Set the extension was needed for the new Knob Set. It would be easy enough to make one though.

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Getting Prepared To Bore, Chisel and Prep the Door

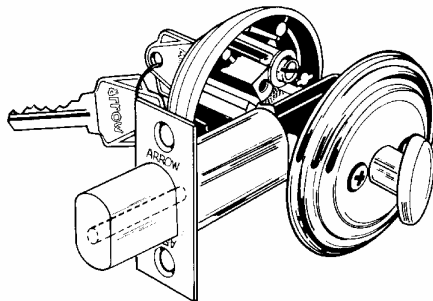
- First mark the door with the Deadbolt Installation Template included with the Lock packaging.
- You will make three marks.
- You will not bore any holes until the two marks on the door are made.

The two marks to be made with the template on the door are:

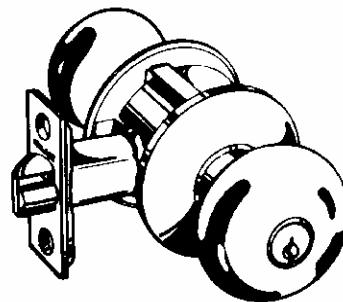
- One mark is made for the hole which the Latch will be inserted into from the edge of the door. Making up the (Latch Set hole). The Latch Hole will be drilled from the edge of the door 15/16" with a Spade Bit. And then cut by chisel to receive the Latch plate. *Do Not Cut for Drive in Deadbolts.
- A mark is made where you will bore the large hole for the Lock Set itself. This will be covered by the Escutcheon (Rosette). This is called the Lock Set Mounting Hole. This will be marked from the Door Edge either 2 & 3/8" or 2 & 3/4" (the Backset). Usually bored with a 2 & 1/8" Hole Saw with a Pilot Bit. Cross bored through the door.

This is a nice Hardware set. 03 or 26D.

Single Deadbolt



**Entrance Knob Set
"Plymouth" Style**



Cross Boring the Lockset Mounting Hole

Step 1

The large hole for the Deadbolt will be cross bored first.

We will use our 2 3/8" Hole Saw with a Pilot Drill mounted in the center. The Pilot Drill bit should protrude at least 1/2" or more from the Hole Saw cutting face.

If the door has a steel face you may want to Center Punch first for accuracy. The Center Punch will be where you seat the Pilot Bit.

Holding the drill straight and true (level), proceed to drill. Bore.

I have tried levels and other gizmos and gadgets on my drill in order to keep it level, \$\$\$\$. Forget it. Just hold the drill straight and true and you will be fine. I have bored thousands of holes free hand that were perfect without a hitch.

As the Pilot Bit enters the material you must hold on firmly to your drill. I prefer a drill with a side handle on which to hang on to. And variable speed is my favorite.

When the Pilot Drill sinks into the material and the Hole Saw grabs the face of the mounting material, there will be a strong tug. I have had my Pilot Drill bit snap off, so be ready. Rare, but it happened.

Safety goggles are suggested to protect your eyes.

I will bore with the Hole Saw until it cuts through the first steel face. (If Boring a steel faced door).

If the door is wood continue Boring until the Pilot Bit pokes through the other side of the door and Stop!

As I bore the Knob Set Mounting Hole I will stop every now and then and look at the other side of the door. I do this in order to see if the Pilot Drill is popping through the other side of the door. When it does appear I stop drilling. The reason for stopping is; If you continue to Bore the hole and the Hole Saw breaks through the surface of the other side it WILL splinter the door and tear it up.

Remove the drill and using a Probe, Scribe Awl etc... Pick out the steel face which is now inside the Hole Saw. It will prohibit you from drilling any deeper if it is not removed. Be careful it is extremely hot !

If you drop it, it will melt a carpet. I haven't, but I know someone who had this happen to them. The Client was very unhappy to say the least.

Continue drilling straight and true. I then remove the drill and proceed to bore from the other side of the door where the Pilot Drill appeared. If the door is a steel faced door, Bore until the Hole Saw breaks through the steel face.

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Remove the drill and using a Probe, Scribe Awl etc... Pick out the steel face which is now inside the Hole Saw.

It will prohibit you from drilling any deeper if it is not removed.

I then proceed to drill out the hole until I have the "hole plug" free.

With a wood door it is only necessary to drill as deep as when the Pilot Bit appears and then Bore the other side until the wood plug pops out.

This two way Cross Boring prevents the Hole Saw from splintering the door face as it pops out of the door. If one was to perform a straight through hole Boring.

You should stop when you see the Pilot Drill bit emerging and drill from the other side.

The Latch Hole

Step 2

The (15/16" Spade Bit) Latch Hole is bored from the center of the Door Edge to, and into the cross bored Knob Set Mounting Hole.

Hold your drill straight and true at your hip and bore the mark you made with the installation template.

As you bore through the door you will see that it pops out in the middle of the "Cross Way Bored"

2 & 1/8 " Lock Set Mounting Hole. (the large hole). It has a tearing effect when it pops through, and that is all right.

Keep the drill straight and true.

The Latch Hole In A Wood Door Edge Will Be Bored With A Spade Bit That Is 15/16" In Diameter .

If the door is steel, a 15/16" Spade Bit will be of no use.

You will have to use a 1" Hole Saw with a Pilot Bit.

You would bore again as you would for a steel face door. Stopping and removing the steel piece before continuing with the hole Boring.

Sometimes only foam or insulation are present and you will be on your way to the Lock Set Mounting Hole and mounting the Lock Set in good speed.

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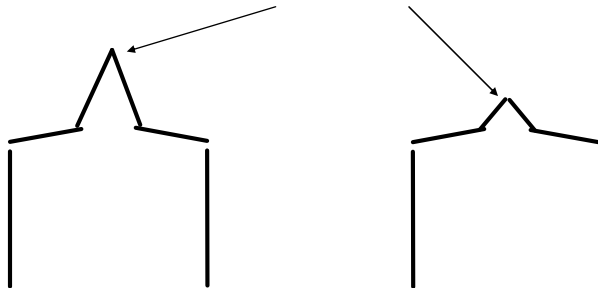
With Schlage Latches you must continue through with your 15/16" Spade Bit and continue across the cross bored Knob Set Mounting Hole. Continue to drill about 1/2" into the other side of the Knob Set Mounting Hole. This 1/2" will allow the longer Schlage Latch to fit properly.

If there is glass present on the door opposite where the extended Schlage Latch Hole will be bored, the glass may be shattered by the 3/4" long tip of the 15/16" Spade Bit.

To remedy this I grind the 3/4", 15/16" Spade Bit tip down to about 1/4". A tip from "JJ".

I still maintain the triangular tip. It is just 1/2" shorter. In this way if you are careful and need to drill across the Knob Set Mounting Hole and there is glass you may. Do so carefully.

15/16" Spade Bit Tip ground down from
This to This



After the doors, Latch and Knob Set Mounting Holes are bored, you will move on to the Door Jamb.

Sharp tools are the rule

Latch Retaining Hole or Latch Keeper Hole

Step 3

At this point you would use your dowel type marking tool to mark the Door Jamb.

- The third hole is made on the Door Jamb itself. This is marked with your Dowel type marking tool and will be drilled to receive the Latch or Deadbolt and cut for the Strike. The dowel tool will be inserted into your previously drilled Latch Hole from the Door Edge with the door open.

Mark the Door Jamb edge where the Latch Retaining Hole will be and bore a 15/16 " hole.

To mark the Door Jamb for a Latch Retaining Hole, I use a Strike Marking tool.

This dowel type tool is made by several companies and it is used for accurately marking the edge of the doors Jamb.

In the next few steps I use a set of **three specialty tools** to aid me in the prepping process.

Dowel Door Edge Marker

The first tool I use is shaped like a large wooden dowel. It is made of aluminum and is pointed at one end.

The door should be open and you are straddling the door looking at its edge, straight on. The Dowel Marker is inserted (pointed end out) in the pre- drilled Latch Hole.

1) Dowel Type Hole Marker



The dowel type hole marker is 15/16" in diameter and will slide Right in the previously drilled Latch Hole. Remember to face The pointy tip out toward the Edge of the door.

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If it appears to be at an angle Either pointed up or down you Should try to re-bore the 15/16" Door Edge hole again.

Trying to make the hole straight. Do not go over board.
("Over Bored", that is a Pun).

* Note. If the door is a steel door, be careful not to drop the Dowel Tool down a hollow door. If the door is a hollow steel door, close the door as you would to mark for the Latch Hole. And eye balling into the cross bored hole use an awl to mark the door jamb where the center of the Latch Hole should be.

Push the dowel type tool tip in past the edge of the wooden door.

The Dowel Marker should be in such a way that when you close the door, the Dowel Marker is not protruding out the edge of the door, marking or damaging the Door Jamb when the door is closed.

The door is then shut tight. If you are installing a Knob Set you are holding the door firmly shut. Use a 1" screw driver and through the Lock Set Mounting Hole, push the Dowel Marker into the edge of the Jamb.

The door is then opened and the dowel tool removed.

Examine the Door Jamb edge.

The Dowel Marker should have left a mark on the Jamb. A small dimple from its pointed tip..

The dimple mark is where you would place the tip of your 15/16" Spade Bit and drill straight in. When you reach the "hollow area" your through.

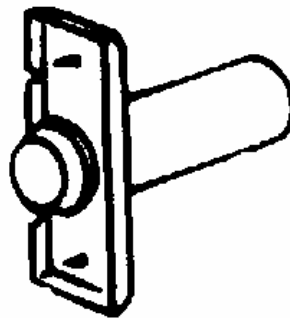
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Strike Marker

Using your second tool, your Strike Marker insert the Strike Marker for marking the Strike on the Door Jamb's 15/16" hole. Hold the Strike Marker straight and true.

Whack firmly several times with a hammer.

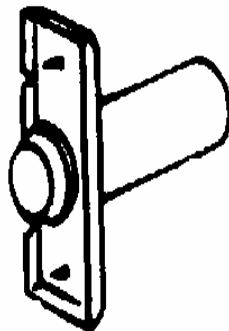
2) Strike Marker
is Shorter than the
Latch Cutter



Latch Cutter

Use the next tool, the Latch Cutter. This is placed in the 15/16" bored Latch Hole in the edge of the door, whack this too with a hammer a couple of good, strong blows.

3) Latch Cutter
is Longer than the
Strike Cutter



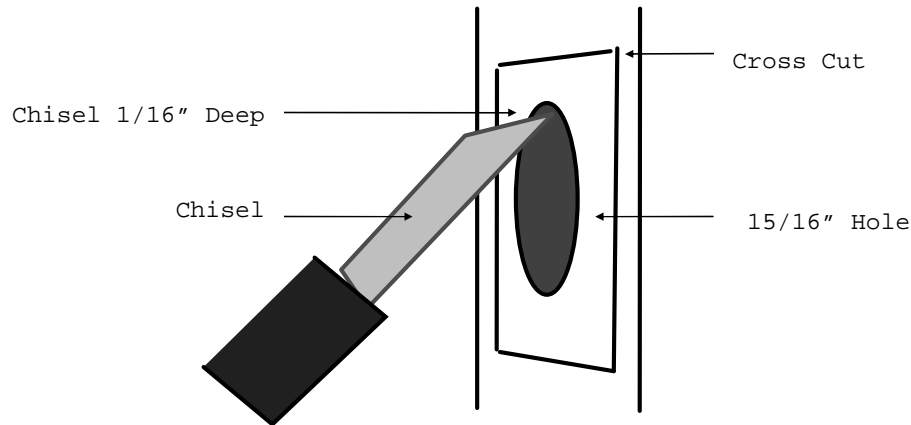
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The Chisel

Use a chisel and cut out the Jamb for the Strike.

I find that the chisel should be placed bevel side up from the bored hole. From this position the chisel should be placed for the cut about 1/16" deep at the edge of the bored hole.

Usually one good whack will take the chunk out neatly right up to your chiseled cross cut.



Then use your chisel and cut out the edge of the door where the Latch will be inserted.

After you have chiseled both square areas out, re-bore the two 15/16" holes (one on the Door Edge and one on the Door Jamb) with a 1" Hole Saw. Just enough to enlarge them. This will allow the Latch to be inserted easily and the Latch to go into the Strike with ease.

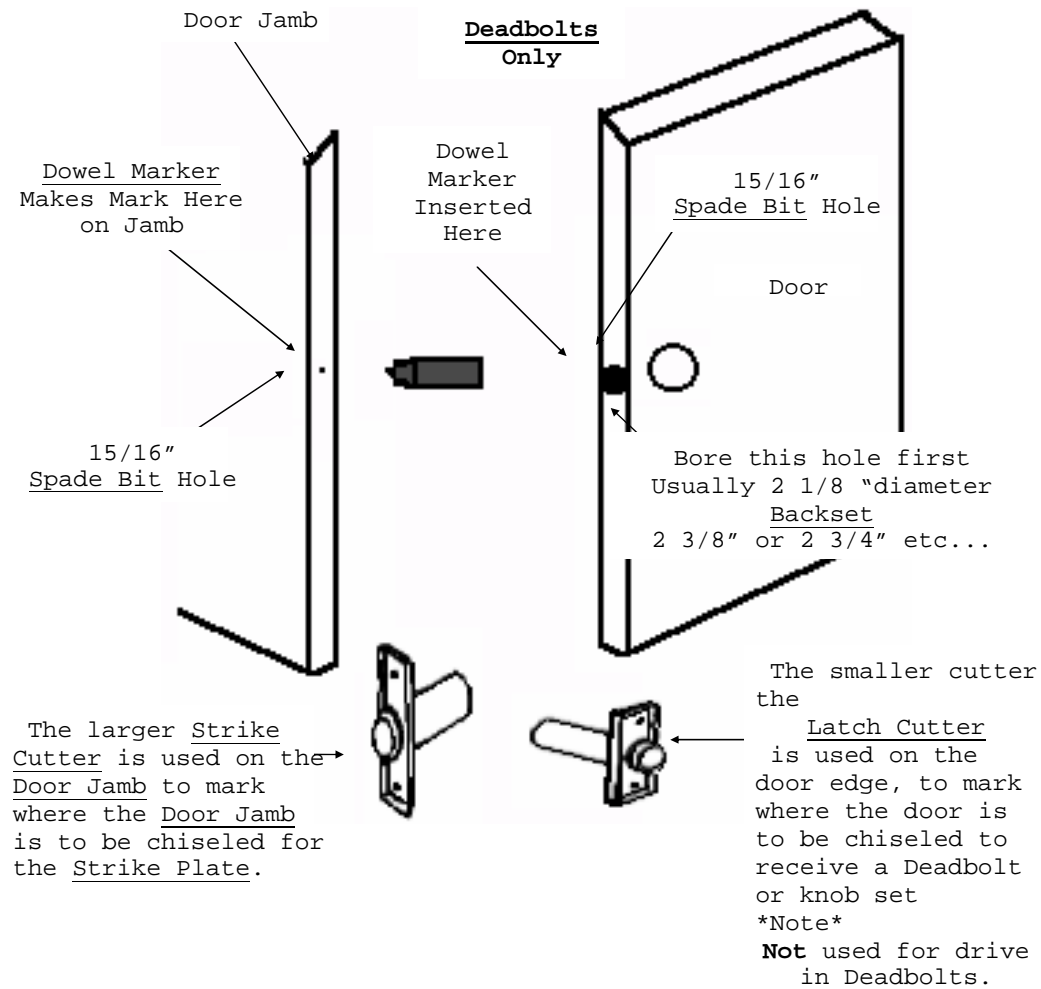
This is especially true for the Deadbolts.

After the Latch is inserted, the Latches Tail Piece connecting hole should be in the middle of the Deadbolt or Knob Set Mounting Hole.

Now mount the Strike.

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Wooden Doors Only



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Cross Boring the Lockset Mounting Hole Step 1

Safety goggles or glasses are suggested to protect your eyes. The door should be closed.

The large hole for the Deadbolt will be cross bored first. We will use our 2 3/8" Hole Saw with a Pilot Drill mounted in the center. The Pilot Drill bit should protrude at least 1/2" or more from the Hole Saw cutting face. If the door has a steel face you may want to Center Punch first for accuracy. The Center Punch will be where you seat the Pilot Bit. Holding the drill straight and true (level) proceed to drill or bore. I have tried levels and other gizmos and gadgets on my drill in order to keep it level, \$\$\$.



Forget it. Just hold the drill straight and true and you will be fine. I have bored thousands of holes free hand that were perfect without a hitch. As the Pilot Bit enters the material you must hold on firmly to your drill. I prefer a drill with a side handle on which to hang on to. And variable speed is my favorite.

When the Pilot Drill sinks into the material and the Hole Saw grabs the face of the mounting material, there will be a strong tug. I have had my Pilot Drill bit snap off, so be ready. Rare, but it happened.

Continue drilling straight and true.

I will bore with the Hole Saw until it cuts through the first steel face. (If Boring a steel faced door).



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After you have cut through the steel face stop drilling, remove the drill and using a Probe, Scribe Awl etc... if you were drilling a steel faced door, remove the steel face which is now inside the Hole Saw. It will prohibit you from drilling any deeper if it is not removed. Be careful it is extremely hot! If you drop it, it will melt a carpet. If the door is wood continue Boring until the Pilot Bit pokes through the other side of the door and Stop! As I bore the Knob Set Mounting Hole I will stop every now and then and look at the other side of the door. I do this in order to see if the Pilot Drill is popping through the other side of the door. When it does appear I stop drilling.

The reason for stopping is;
If you continue to Bore the hole and the Hole Saw breaks through the surface of the other side of the door it WILL splinter the door and tear it up.

Proceed to bore from the other

side of the door where the Pilot Drill appeared. If the door is a steel faced door, Bore until the Hole Saw breaks through the second steel face.

Remove the drill and using a Probe, Scribe Awl etc... remove the second steel face which is now inside the Hole Saw. It will prohibit you from drilling any deeper if it is not removed. I then proceed to drill out the hole until I have the "hole plug" free.

With a wood door it is only necessary to drill as deep as when the Pilot Bit appears, move the drill to the other side of the door and then Bore the other side until the wood plug pops out. This two way Cross Boring prevents the Hole Saw from splintering the door face as it pops out of the door. If one was to perform a straight through hole Boring.



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The Latch Hole Step 2

The (15/16" Spade Bit) Latch Hole is bored from the center of the Door Edge to, and into the already bored, cross bored Knob Set Mounting Hole.

Hold your drill straight and true at your hip and bore the mark you made with the installation template.

As you bore through the door you will see your spade bit pop out in the middle of the "Cross Way Bored" 2 & 1/8 " Lock Set Mounting Hole. (the previously bored 2 1/8" large hole). It has a tearing

effect when it pops through into the previously bored 2 1/8" large hole, and that is all right.

Keep the drill straight and true.



If the door is steel, a 15/16" Spade Bit will be of no use. You will have to use a 1" Hole Saw with a Pilot Bit. You would bore again as you would for a steel face door. After the face penetration, Stop and remove the steel piece before continuing with the hole Boring. Sometimes only foam or insulation are present and you will be on your way to the Lock Set Mounting Hole and mounting the Lock Set in good speed.

With Schlage Latches you must continue through with your 15/16" Spade Bit and continue across the cross bored Knob Set Mounting Hole. Continue to drill about 1/2" into the other side of the Knob Set Mounting Hole. This 1/2" will allow the longer Schlage Latch to fit properly.

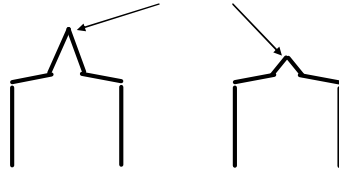
If there is glass present on the door opposite where the extended Schlage Latch Hole will be bored, the glass may be shattered by the 3/4" long tip of the 15/16" Spade Bit.

To remedy this I grind the 3/4", 15/16" Spade Bit tip down to about 1/4".

I still maintain the triangular tip, it is just 1/2" shorter. In this way if you are careful and need to drill across the Knob Set Mounting Hole and there is glass you may. Do so carefully.

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15/16" Spade Bit Tip ground down from
This to This



After the doors, Latch and Knob Set Mounting Holes are bored, you will move on to the Door Jamb.

Latch Retaining Hole or Latch Keeper Hole Step 3

The third hole is made on the Door Jamb itself.

The door is closed completely and the Knobset should be functioning correctly and latched.

* Before drilling into the door jamb make sure there are no alarm contacts on the jamb which may have concealed wires run inside the jamb.

The awl tool will be inserted into your previously cross bored 2 1/8" hole and extended down the drilled Latch Hole. Aligning the awl

so it is centered in the middle of the latch hole, mark the Door Jamb edge directly in the center where the Latch Retaining Hole will be located. Remove the awl and open the door. The dimple mark on the door jamb edge is where you would place the tip of your 15/16" Spade Bit and drill straight in. Bore a 15/16" hole. When you reach the "hollow area" behind the door jamb you are through.



If the hole appears to be bored at an angle either angled up or down you should try to re-bore the 15/16" Door Edge hole again attempting to make the hole straight.

Do not go over board. ("Over Bored", that is a Pun).

The Strike Plate Location Step 4

Place the Strike Plate upon the hole and scribe around it with a pencil.

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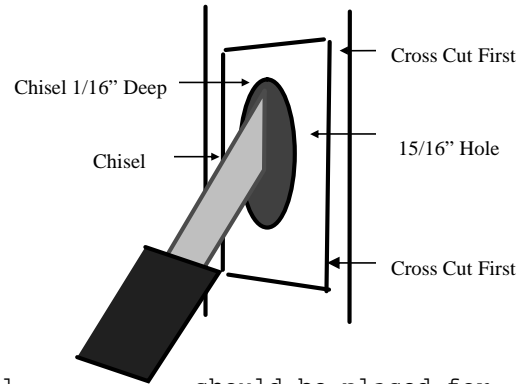
The Latch Face Location Step 5

Slide the Latch into the door edge hole and scribe around the Face Plate with a pencil.

The Chiseling Step 6

Always cut across the grain for the end cuts first. By cutting the end cross cuts first the wood will not split all the way up the door or door jamb. The cross cuts prevent the cut from traveling.

Use a chisel and cut out the Jamb for the Strike Plate. I find that the chisel should be placed bevel side down, toward the bored hole. From this position the chisel should be placed for the cut about 1/16" deep at the edge of the bored hole.



Usually one good whack will take the chunk out neatly right up to your chiseled cross cut. Then use your chisel and cut out the edge of the door where the

Latch will be inserted. After you have chiseled both square areas out, re-bore the two 15/16" holes (one on the Door Edge and one on the Door Jamb) with a 1" Hole Saw. Just enough to enlarge them.

This will allow the Latch to be inserted easily into the door and for the Latch itself to go into the Strike with ease. This is especially true for the Deadbolts and Drive in Latches. After the Latch is inserted, the Latches Tail Piece Connecting Hole should be in the middle of the Deadbolt or Knob Set Mounting Hole.



Now mount the Strike Plate.



Deadbolts

Deadbolts of quality should be installed in all exterior doors. A quality Deadbolt such as Arrow or Schlage.

Stay away from the KwikSet, Dexter and other brands if you can.

The Arrow and Schlage Deadbolts both have a bolt or Latch that extends one inch when thrown. Both Locks contain no plastic. This makes them easier to work with.

Both are made extremely well.

A Single Cylinder Deadbolt is a Deadbolt that uses a Key to Un-Lock and Lock it from the outside, and a Thumb Turn to Un-Lock and Lock it on the inside. It is usually used on a door made of wood or steel that has no glass mounted on it or on either side of it.

The three panes of glass that are mounted sometimes on the top of the door, are not of great concern.

You can not reach down and Un-Lock the door.

There are also Remote Control Deadbolts that use Infra Red Transmitters to Latch and Un-Latch the Lock. The transmitter is similar to that used to Lock and Un-Lock ones vehicle.

A Double Cylinder Deadbolt is mounted on a door that has glass on the door or around the door on either side., Or a door that you wanted: To use a Key on the inside and the outside to Lock and Un-Lock the door.

Example: a door in between two separate Apartments.

Case History:

Once, in Blackstone Massachusetts, the town administrator did not want the chief of police

(I wonder why?) to be able to pass through at the end of the hall.

Upon his request we temporarily installed a Double Cylinder Deadbolt.

Later we changed it to a Communicating door Lock.

Fire was always a serious consideration and emergency Egress abounded.

There are several considerations when installing a Double Cylinder Deadbolt.

A Double Cylinder Deadbolt should never have the Key left in the inside cylinder. Some people leave the Key in it for convenience of Locking or Un-Locking the door from the inside. With the Key left in the inside Cylinder , anyone could then break the glass, reach in and Un-Lock the Deadbolt. As with a Thumb Turn.

Therefore defeating the very purpose for the Double Cylinder Deadbolt.

Fire and Deadbolts

Fire is always a concern.

If a fire should arise you would need a Key to Un-Lock the Double Cylinder Deadbolt on the door. A Key would then be kept near the door for an emergency. It would have to be kept close to the floor in case of smoke. You then would be able to find the Key while crawling on the floor.

The Key placed in it's special spot would then never be touched.

When the Key is left in it's special spot, it must be located far enough away from the door so that it could not be reached by someone's arm or say even a coat hanger from the outside.

The normal Back Set for a residential Deadbolt is 2 & 3/8 " and 2 & 3/4 " for commercial applications.

The installation for a Deadbolt is the same for a Knob.

The holes are bored the same .

The Dead Bolt is usually mounted above the Knob Rosette, from several inches to six or more inches.

The Deadbolt should be high enough that should you Un-Lock the Deadbolt with a ring of Keys, they will not scratch the Knob below.

I hold the template that came from a Knob box on end , on top of the Knob Rosette. I use the template in this way for the height from the Knob. I then mark the door for Deadbolt height.

I have found that a good height from the Knob Rosette to the Deadbolt is approximately the length of the template paper.

Another reason I like to mark the Deadbolt a little high is that I also like to distribute the area of protection covered between the Knob and Deadbolt over a larger area.

I then use the template the correct way, as in the Knob installation, and mark the door for hole Boring..

Hole Saws Should Be Bought Several At Time

Hardware stores do not stock many of the Hole Saws. If you get to purchase your 2 1/8" Hole Saw ask for two.

They are very hard to come by. Carpenters, plumbers, electricians, builders are just some of the people who buy them in quantity.

Changing the Hand of Door

Deadbolts

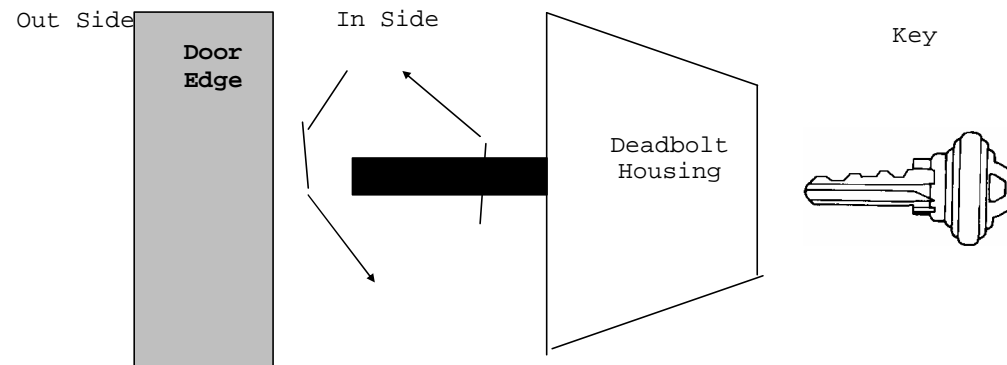
This is the technique that will separate those who know what they are doing from those who do not.

Usually when you see or come across a Doorknob and or Deadbolt that is installed upside down it is because the original Installer did not know how to change the Hand of Door. The Deadbolt would only operate the Latch one way. And since the Deadbolt would only work the Latch correctly when it was installed up side down that is how it was installed. It is very easy to over come this problem and make things right.

Here is the secret.

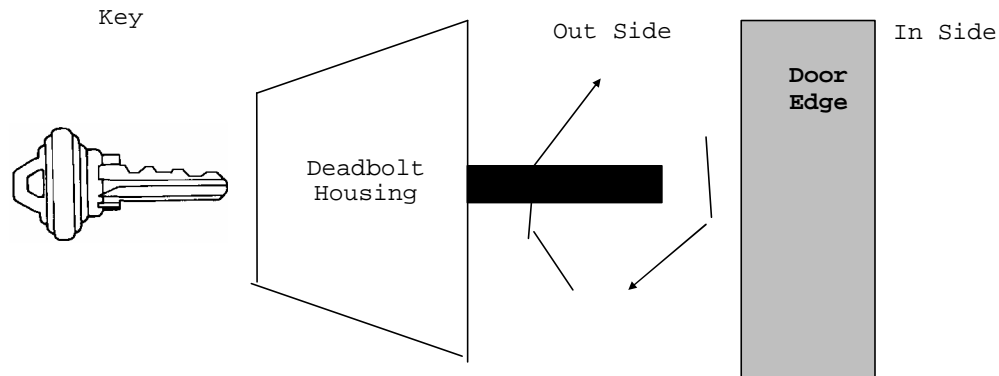
With the door opened and straddled between your legs hold the Deadbolt Cylinder and housing, which will be on the outside, in the appropriate hand. Hold the Lock away from the door face but in the correct position. Now with your other hand turn (rotate) the Tail Piece "up" and "Away" from you.

If the "Out Side" Deadbolt were in your right hand as pictured below, you would turn the Tail Piece as viewed from the back of the Lock "Counter Clockwise".



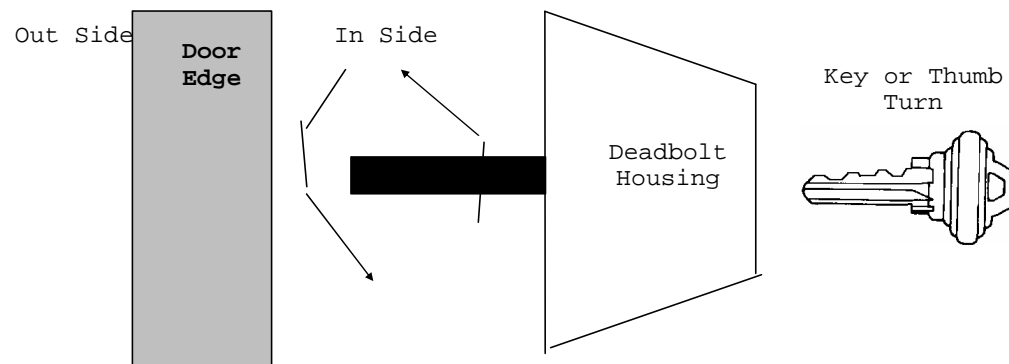
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If the "Out Side" Deadbolt were in your left hand as pictured below, you would turn the Tail Piece as viewed from the back of the Lock "Clockwise", "Away from you".



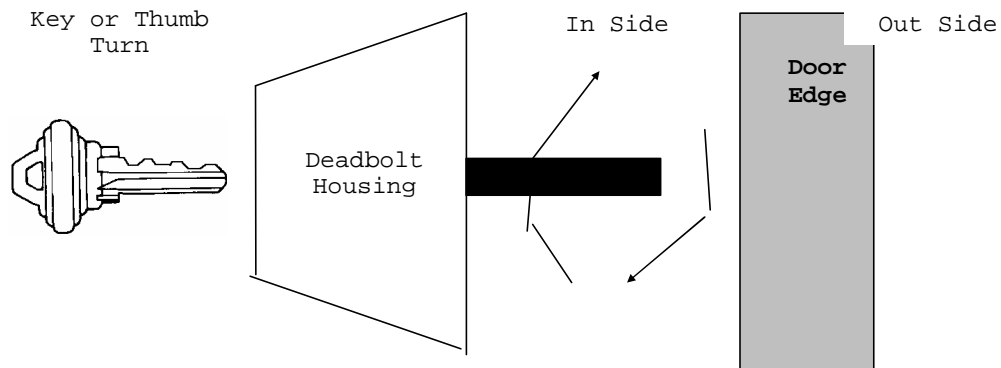
Now repeat the process with the inside Deadbolt Cylinder and housing.

If the "In Side" Deadbolt were in your right hand as pictured below, you would turn the Tail Piece as viewed from the back of the Lock "Counter Clockwise", "Away from you".



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If the "In Side" Deadbolt were in your left hand as pictured below, you would turn the Tail Piece as viewed from the back of the Lock "Clockwise" "Away from you".



The two Tail Pieces usually have a specific shape and they only will fit together one way.

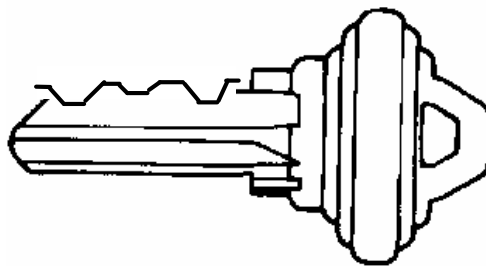
This "**Turning The Tail Piece Away From You**" will work every time.

Put the appropriate housings on either side of the door and assemble them fitting the Tail Pieces together through the Latches Tail Piece connector. If the two Tail Pieces do not fit together, one of the Tail Pieces is turned incorrectly.

If the Latch does not operate correctly or on one side and not the other, check the Tail Pieces.

The Keyways of the Knob Sets and Deadbolt Cylinders should have the Pins on the upper side.

In other words the Keys Cuts should be up.



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In this way dirt, dust and debris will not contaminate the Lock as bad with the Pins and Springs in the top. A storm door protecting all is even better.

If one was to Re-Key an Arrow Deadbolt they will find a flat, round piece of metal underneath the Tail Piece. This Dust Plate is to keep out dust.

I presume that in real dusty environments it works great, but where I was reared in the north, I would remove it.

The pranksters and the like would stick a tooth pick into the Keyway to prohibit the insertion of a Key.

With the Dust Plate removed it was a sure bet to push the tooth pick through and out the back of the plug.

With the dust cover in place you were destined to drill.

Changing the Hand of Door

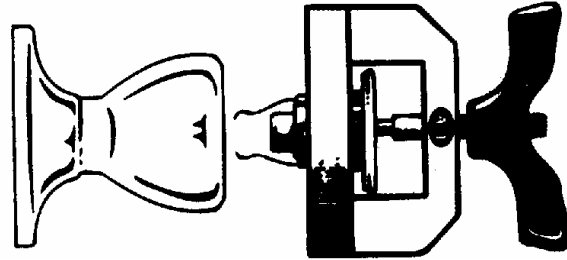
Door Knobs

Door Knobs do not have Tail Pieces that need to be turned to change the Hand of Door. Instead the Up Side Down Knob and Plug need to be removed and reinstalled Up Right.

With KwikSet Knobs there are two choices;
Either use a Kwikset Nose Puller to pull the Nose and Plug directly out and then simply turn them over so that they are Up Right or;
You will need to remove the two knob Set screws, remove the Knob, remove the center drive rod, drive out the Nose and then turn the Nose over and install it to the Up Right position.

Let's Take a Closer Look At Handling a Kwikset Lock

Kwikset Nose Puller



Kwikset utilizes a completely different re-Keying Process than all of the other Locks. There are two different types of tools for rekeying this type of lock. One of the tools is a flat piece of steel which is jambed into the nose of the lock from the rear after the lock has been completely disassembled.

The other tool is shown here. This tool costs ten times as much as the first flat tool mentioned, but it is worth; ten times the money, time and aggravation.

Remember to spray lube everything well.

Keeping the Tool Kit Tidy:

I keep my Kwikset Nose Removal Tool in a small square plastic container with a lid. In this way the unit is complete, intact and ready for service. **Picture 1.**

The plastic film vile seen to the left contains extra Kwikset Key Replacement tips. I attempted to purchase extra Key Tips and beside the tips being \$14 each. The Distributors Never had any in stock so I made my own.

Picture 1



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We removed and rekeyed the Deadbolt as usual as seen in **Picture 2** and **Picture 3**.

Picture 2



Picture 3



The Kwikset Tool with Special Key Tip is inserted into the Doorknobs keyway deeply. Close up views in **Pictures 4,5** and **6**.

Picture 4



Picture 5



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* Note the extra large Escutcheon the Door Knob is mounted with. Most likely the bored hole underneath is butchered, thus the camouflage. The knob is old and discolored and the door splitting and in rough shape.

Picture 6



After the tip with threaded rod is inserted into the knobs keyway the winged driver is threaded on and tightened down **Picture 7** and **Picture 8**. The tip must be pushed in deeply into the keyway in order for the tool to work correctly.

Picture 7



Picture 8



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The winged driver is threaded down until the Nose of the knob is felt popping out of the knob. **Picture 9** and **Picture 10**.

Picture 9



Picture 10



In some cases I have found the clips are torn completely from the body of the lock shell and the lockset is useless without an extra shell in ones arsenal. It would be easier to replace the whole unit.

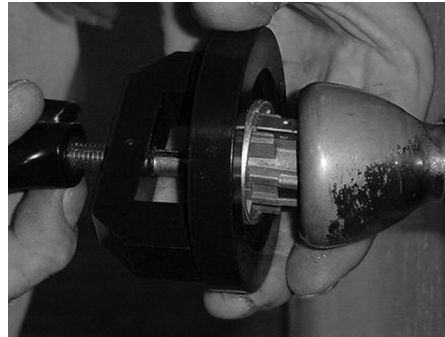
The corrosion and rust will decay the lock set inside.

Picture 11 and **Picture 12** show the Nose of the Kwikset Lock Popping out.

Picture 11



Picture 12



The winged driver is now backed all the way off and the main housing removed. As seen in **Picture 13**.

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Picture 13

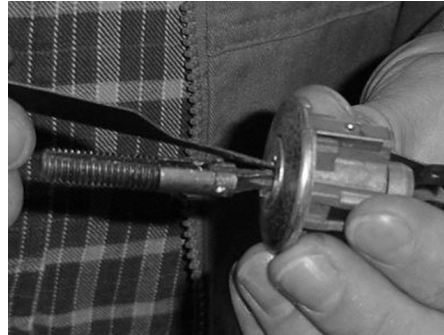


The Kwikset Key Tip is retained by the Top Pins and must be removed in order to continue. The kit should have a tool which is used to lift the top pins out of the way and extract the Kwikset Tip. An extraction tool or even a diamond Pick may work. The top pins are manipulated up one by one and the tip extracted. **Picture 14** and **Picture 15**.

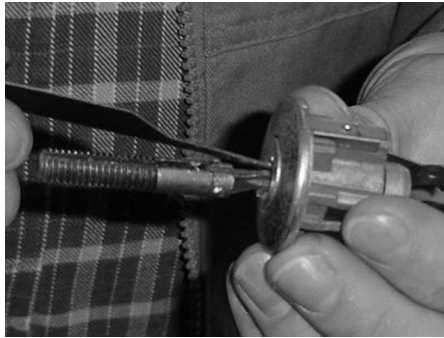
I have found sometimes the special tip can not be removed due to its being worn and the tip of the special tip rounds. It gets hung up in the Pin Chambers.

You must then remove the cap of the Cylinder. The Cylinder Cap may be seen in **Picture 16**. Once the cap, Springs and Top Pins have been removed a pointed/sharp object may be used to probe down into the Pin Chamber and attempt to remove the Kwikset Tips burr which is prohibiting the tip from being removed from the Cylinder.

Picture 14



Picture 16



The entire process (minus Re-Keying) takes one minute to pull the nose and another minute to extract the tip.

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KwikSet Nose Removal Tool

This section will discuss the Flat Tool mentioned in the previous section for removing the Kwikset Nose.

Although I had made several special "Kwikset" Tips for the previously discussed Kwikset Nose Puller, my tip on this job encountered the snagged chamber again. I had to disassemble the lockset and remove the retaining cap and dump all of the contents out in order to get at the stuck tool and empty Pin Chambers. After removing the Pins and Springs I found several pins still caught in the chambers from the salty sea air and corrosion. This area here in North Carolina is a very caustic enviroment.

After finally removing all of the Pins I was able to probe the stuck tip enough to free it and remove it from the plug. Projects, projects.

I replaced the tip with a new one, only to have the roll pin which retains the special tip rip out of the drilled hole.

I did not have time to mess with it. I used my back up Flat Tool which I will show you here. It takes some banging and rough work to accomplish the goal but it can be done. In this case it was a real trouble Saver.

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A view of the Kwikset Knob removed from the door.



This view allows us to see the shaft running down the center of the lockset with a foot at the bottom resting on a platform.



The center shaft is turned so the "Foot" is in line with the mounting screw, mounting shaft.

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Keeping the Shaft's Foot in line with the post, you will find under the mounting platform a disc. If you use a small screw driver you will find you can push this disc in against a spring. If you were to push the Spring and Disc in, while keeping the Foot Straight in line with the screw post, you will find the center shaft may be lifted up and out of the unit.



Sometimes a little coaxing of the foot with a small flathead screwdriver will help as well.



a



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The



shaft removed.



A closer look at the Removal Tool. The straight end could have been used in order to push the disc and spring in.



The "U" shaped end will be inserted into our lockset. The "U" is what will contact the clips on the lock shell causing them to release the nose.

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The "U" shaped end may be seen ready to be inserted into the cavity left from the removal of the shaft.

The tool is inserted at an angle so as to accommodate the tight fit. As the tool is inserted, the tool is then turned placing each of it's two narrow edges parallel to the screw mounting posts.



I may be seen here banging the tool and unit against the pavement.

The tool has un-clipped the nose and the nose has been driven up and out into my hand.



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The nose is clearly in my hand and the tool may be seen protruding from the knobset body. Notice the "U" shaped end in relation to the Lock Shell Clips. It pinches them in, in order for the clips to release the nose.



A view of inside the knob with the cylinder removed. You can see where the two clips on the side of the Lock Shell clip and grab the The knob housing. If you place the tool with the "U" shape toward the Shell Clips you will get an idea of how the tool pinches the clips together thus releasing it.



You know what to do with this.

Be nice now. Re-Key it.

All of this mentioned and taught here is the reason why one finds Kwikset locks installed "**Upside Down**" the Key Cuts down and not up. The installer did not know how or was incapable of doing so.

There is a method and the correct tools must be used. Period.

The nose needs to be removed and inserted back into the knobset right side up. Thus changing the hand of knob

All one need do is simply pop the nose back into the knobset correctly. It is up to the individual as to how they removed it.

Back to Basic Lock©. If the unit is mounted upside down, dirt and debris will enter into the Keyway and damage the springs and pins.

The lock will cease to function correctly if at all and Locksmithing will be needed.

Kwikset Locks are not quick in any sense of the word and are troublesome to work on. They are Cheap Locks.

Now if you run into a Titan Lock which is a Kwikset sister.

The knob is disassembled and the key is inserted and turned 90° in order to remove the plug for service.

Arrow Door Knob

With an Arrow Door Knob the Knob must be Un-Locked. Use an awl to poke the hole Wafer and remove the Knob and Plug. Then simply turn them over so that they are Up Right and poking the Wafer re-install.

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Schlage Door Knob

A Schlage Door Knob is the same as above, but you must either have a working Key or Pick the Lock to the two O'clock or ten O'clock position in order to poke the hole Wafer. Repeat to install.

Lever Handle Locks

Lever Handle Locks use the same Installation Holes and Boring and usually utilize a Key to change the Hand.

Door Knob Installation

A Typical Installation

When installing Knobs the Jamb Strike Plate has a curl that wraps around the frame corner. This is what receives the Knobs Latch as the door is swung shut. You must mark and cut these taking care in doing so.

Follow the instructions that come with the Knob. They are fairly simple to understand.

After the Knob is installed, you may proceed to the Deadbolts.

I prefer to install all the Knobs first.

I make sure all of the Knobs are working correctly and then I proceed to the Deadbolts.

An Entrance Knob, is a Knob that uses a Key to gain entry and has a button to Lock and Un-Lock the door.

Many a door, inside a garage has been fitted with only a Passage Knob. Look for them and you will see them.

This is a very bad choice of Knob.

A Passage Knob Set would be used on a closet door in a house. You just turn the Knob to open the door.

No Key is needed, nor are there any buttons to Lock or Un-Lock the door.

Any door that leads outside should have an Entrance Knob installed in it.

Many garages have windows in them. Either on the overhead doors or on the building it self.

Basement doors that are located going up to the bulkhead or leading outside should have a Deadbolt and Entrance Knob installed for added Security measures.

Many Clients of mine request a Deadbolt and Entrance Knob installed on the basement door leading down the stairs to the basement from the kitchen or hall. You want to be careful while securing a house with a basement not to create a Trap.

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In this case I am referring to the following:

By adding Double Cylinder Deadbolts to the basement doors and a Single Deadbolt at the top of the stairs with the Lock face on the basement side you have in a sense created a trap and a possible dangerous situation.

If someone was to drop down through a basement window well, they would find themselves trapped in the basement without a way out. The basement window is too high and the perpetrator can not contort their body backwards and slide out.

The basement door has a double Deadbolt they can not go out that way, so the only way out is at the top of the stairs through the kitchen or main hall. They will either kick their way through the Single Deadbolted Door or wait until an unsuspecting victim opens the door.

After the door is marked where the Deadbolt is to be installed. The 2 1/8" diameter hole is cross bored through the door. **Figure #1.**

The drill is held at a right angle to the face of the door.

Figure #2. Figure #3.

Figure #1



Figure #2



The Pilot Bit has poked through the face of the door. **Figure #4**

The Hole Boring Procedure is now stopped. And the Holesaw removed from the door. If the door is metal the first metal door face which we bored through is retained inside the 2 1/8" Hole Saw. This piece of metal must be removed before we proceed.

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Figure #3



Figure #4



After the Piece is removed we continue our Cross Boring from the other side of the door where the Pilot Bit Poked through. We will use this hole to guide our Pilot Bit and saw through the new door face.

When the hole is bored through and the Hole saw removed the door plug is removed from the hole saw.

We now mount up our 15/16" Spade Bit and bore in from the edge of the door where we have previously marked. **Figure #5.**

The 15/16" Spade Bit Hole is Bored into the cross bored 2 1/8" Hole. **Figure #6.**

Figure #5

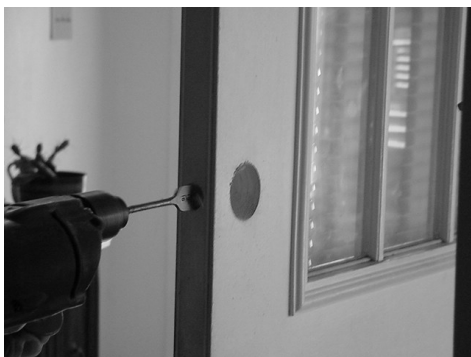


Figure #6



Figure #7

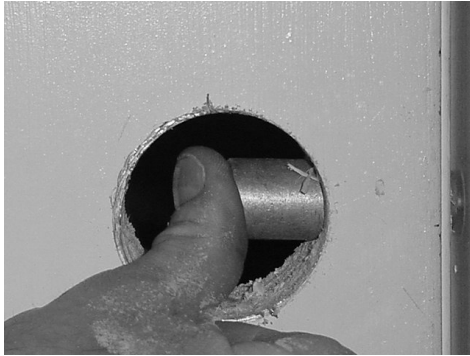
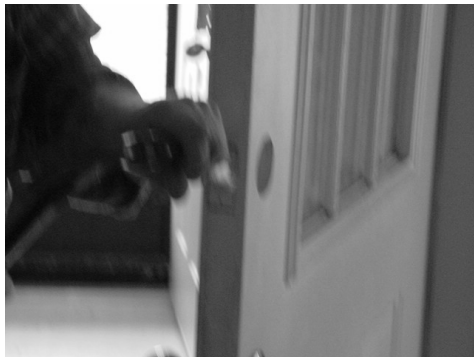
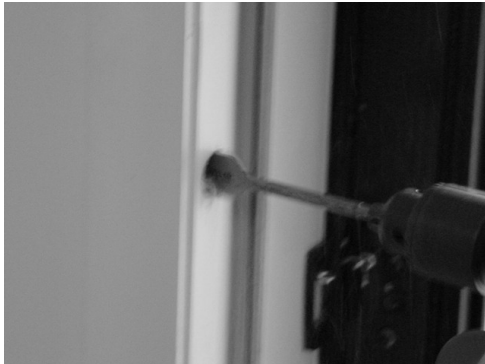
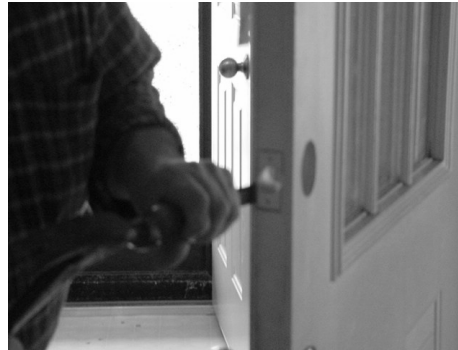


Figure #8



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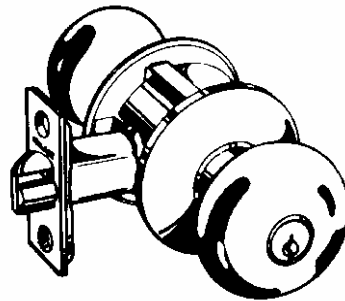
Beaufort NC. USA.



There are many Different Types of Door Knobs

Entrance Function / Key to Lock and Un-Lock the outside, Thumb Turn on the inside.

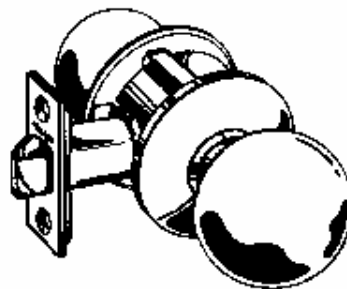
Plymouth Knob
Entrance Function



Closet Function / Key on outside always Locked, free Knob inside never Locks.

Passage Function / no Key or Lock Either side, always free either side.

Ball Knob
Passage Set



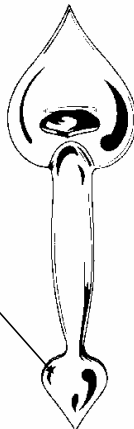
Privacy Function / Thumb Button on Inside, poke hole outside to gain emergency entrance.

And many, many more Functions and Finishes are available.

Handle Sets



These two Handle Sets would be mounted almost the same way as a Knob or Deadbolt. The only difference is a small screw hole must be drilled through the door. This is to hold the bottom of the handle set down. They come with a Mounting Template.



Follow the instructions that come with the Lock Set. Use my literature and enhancement videos and you will be all right. Take your time and have confidence in your work and yourself.

Notice the Keyway is located in a Deadbolt mounted above the Handle Set.

Two Sets of Holes are bored. One set of Holes for the Handle Set and Latch and one set of holes for the Deadbolt.

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This particular Handle Set is an "Odd Ball". The Key Locking Mechanism is built into the Handle Set. **Figure #A.**

It is Not Re-Buildable nor could I find one to replace it.
Usually the Handle Set has the Locking Deadbolt installed above it.
The Latch is a special Latch. It may be extended by use of the Key
into a Deadbolt Position.

Figure #A



Figure #B

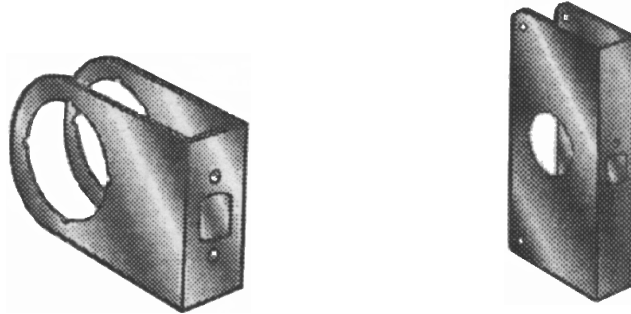


In **Figure #B** we can see the screw hole at the bottom of the Handle Set used to hold the Handle Set to the door.

Door Edge Shield

Sometimes called a Door reinforcer. This is a piece of metal that is made for and wraps around the edge of a door thereby reinforcing it.

This plate may be used to aid in preventing a successful attack as well as being used for repair. If the door is cracked vertically up the Door Edge this shield may prevent the door from spreading apart and the Lock not working correctly.



Cleaning Locks

You should never use cleaners, polishes, petroleum spirits or abrasives to clean Knobs, Rosettes (Roses) Escutcheons. The Locks protective coating will be damaged.

Keying Alike

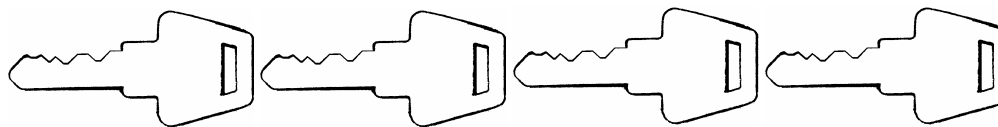
For convenience the Knobs may be Keyed to one Key (KA) Keyed Alike.

This means one Key fits all of the Locks in that particular group.

This can be accomplished if all of the Knobs have the same Keyway. Some people like the Knobs and Deadbolts KA. Others do not like this arrangement.

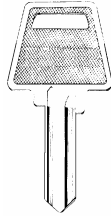
One Key fitting all the Locks is very convenient.

This is the way most residents are Keyed, Keyed alike.



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However if the Deadbolts and Knobs are Keyed different this can also have a positive effect.



It is possible if this is the case, to leave a Deadbolt Un-Locked and give a Key to the Door Knob to the baby sitter. The sitter then could only gain entry to the Premise, when you leave the Deadbolt Un-Locked. Whenever you want to keep the party out , just Lock the Deadbolt.

Master Keying can also accomplish this.

For more hands on experience involving Master Keying, I recommend reading and practicing. If you have a computer, programs are available.

The same Re-Keying techniques may be implemented with residential, industrial and commercial Locks.

You should try to refrain from leaving Keys outside .

Lubrication

Most Knobs come with factory lubrication already on them. Some times white Lithium Grease .

Graphite should not be used at all.

When graphite powder is blown into the Keyway by means of a bulb blower, this powder after contacting the liquid grease becomes thick and gooey, like cement in some cases.

A very bad move.

You can tell when a Lock might have had graphite used in it . By the black coat that comes off all over your hands. Your hands will be black with dry lubrication.

Liz says the graphite powder is a mess maker.

Spray lubricants are your best all round lubricant. Bicycle chain lubrication works well for Locks that will be exposed to the elements.

Commercial Steel and Industrial Doors

Industrial steel doors and frames require a little different approach. I usually charge slightly more when I bore this type of door and frame. The Latch or Deadbolt hole is bore with a 1" Hole Saw and Pilot Bit. It is not, and can not be pre-bored with the 15/16" Spade Bit. A Drive in Deadbolt is utilized.

The steel plate which is cut from the door face is removed from the Hole Saw with a scratch awl. The Hole Saw is then returned to the same cut out hole.

Continue drilling in the same manner until the Pilot Bit pokes through to the other side. Stop drilling. Remove the drill.

Now, continue drilling from the other outside face. The Pilot Bit drilled hole gave us the exact drilling location.

I do not use jigs. I hold the drill straight and true. I have bore thousands of holes this way and have always had straight and true through Boring.

The Strike plate to be located on the Door Jamb is not used.

The Door Jamb is marked as to where the Strike hole will be located.

A 1" hole is then bored utilizing a 1" Hole Saw with Pilot Bit. The Pilot Bit should extend only slightly from the Hole Saw opening.

The reason for this is that; allot of the steel frames are filled with concrete. As soon as the Pilot Bit clears the steel it grinds into concrete. This will ruin the drill bit.

After the Door Jamb's steel Strike hole plate is bored and removed, I chisel out the concrete. For this I use a hammer and very large screw driver. It is a fairly easy task, taking several minutes.

The Door edge hole is not drilled with a 15/16" Spade Bit. Instead I use a 1" Hole Saw with a Pilot Bit.

*Note. If the door is a steel door, be careful not to drop the Dowel Tool down the hollow door. If the door is a hollow steel door, close the door as you would to mark for the Latch Hole. And eye balling into the cross bored hole use an awl to mark the door jamb where the center of the Latch Hole should be.

The Drive in Deadbolt and Lock are assembled but not tightened to tight. Just tight enough for slight movement and adjustment.

The Deadbolt is operated and checked to see that the bolt enters the Strike hole correctly. Sometimes chiseling a little more concrete or filling the Strike hole is necessary.

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For removing metal quickly I use my cordless electric screw driver with a steel, metal grinding tip. I grind Aluminum Store Front doors and so forth with it.

Being Prepared

I carry extra Knobs, Deadbolts, Latches and other miscellaneous hardware in my vehicle. I will try to keep an assortment of 03, and 26D parts available. After moving down south I have found that it is important to carry extra narrow style door 26D Deadbolts in order to service mobile homes.

Colored Wax Crayons for Mistakes

An assortment of colored wax sticks may be obtained from the hardware store. The wax sticks match different shades of wood and are very handy if one slices or nicks the door or jamb. Simply rub the correct color tone wood stick over the damaged spot and vi'ola! All is well.

Cleaning Up After The Job

I found after several bad experiences not to clean up .
The following story happened several times.
I can almost guarantee this would happen again if I let it.
After installing Dead Bolts, the shavings would be on the floor.
Usually they are in a confined area, a small group on the floor.
I would pull out my Dirt Devil vacuum and proceed to vacuum my shavings.

Cleaning Up After The Job Case History:

Several times I took my friend's son to help. Each time we would vacuum, the lady or the man of the house would say "you missed here, and you missed there". Before you knew it you would be vacuuming the entire house.

Sometimes into rooms you never knew were there. A few times my friend's son would be angry with me on the way home. This resulted into, no more cleaning.

I have found that it is "Freudian", "psychological", not to mention anything that you don't want brought up.

Fore instance, cleaning up your wood shavings.

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I mentioned to one man that, we do not clean and vacuum.

At the end of the job after installing four Deadbolts, he complained about our not cleaning. The only reason he mentioned it was because I brought it up and imbedded it in his mind. I should never have said anything.

Did you ever see an electrician or plumber clean up after their work is finished ? Never.

Always take your Knob and Deadbolt boxes and wrappers with you.

The client may take them to someone and ask if this particular brand is of quality and the price. Of course the other party will always say that better quality Hardware could have been installed and they always will say they could have provided a much better Price.

I will remove the old Knobs and Deadbolts also unless I am told not to.

Lever Handle Removal

There was a store in North Carolina that utilized an Aluminum Store Front Door with two Mortise Cylinders. One **Cylinder Key Locking** on the inside and one Lock Cylinder Key Locking on the outside. The back door utilized a Double Cylinder Deadbolt which was accompanied by four throw bolts around the doors inside.

I knew of a woman who was locked inside of the store. The manager had remained inside the store. An employee vacated the premise and locked the door. The manager was locked inside and did not have a Key to Un-Lock the store. She was able to call the employee several hours later at her home and have her return and Un-Lock the door.

Remember fire is always a concern.

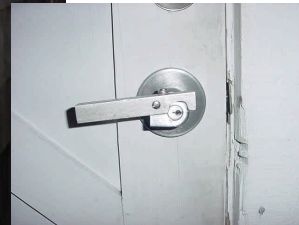
In some places the law does not allow the doors (S) to be locked with patrons in the store.

Some people will request Double Cylinder Deadbolts on Cashroom doors or in a store in order they may be afforded the Security of Locking the door in order to count cash.

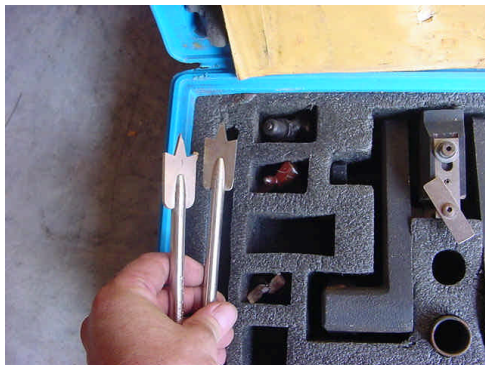
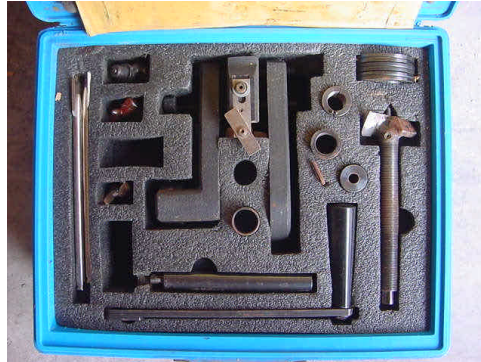
I have installed thousands of Deadbolts in residential applications.

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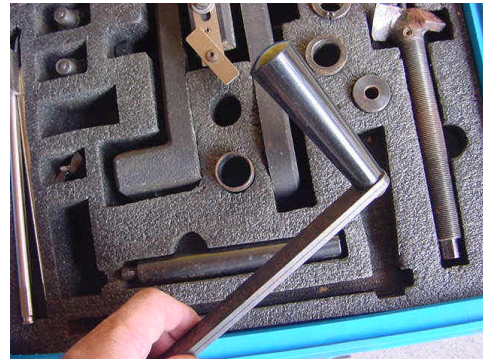
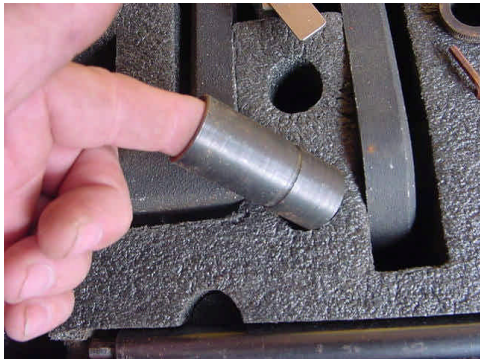
A Lever Handle Lock Repaired Beaufort NC. USA.
Museum of Maritime History. A Licensed North Carolina Coastal
Locksmith repaired this. The Lever handles was snapped off and thus
the repair.

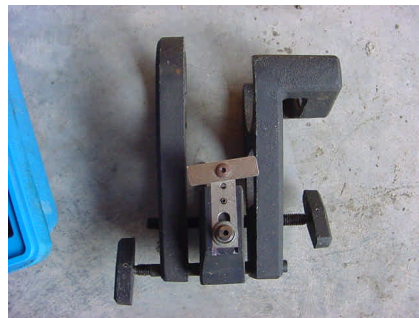
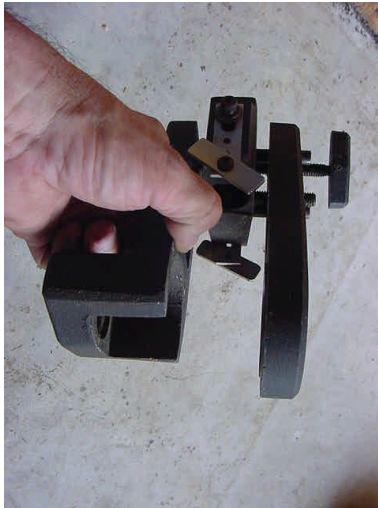


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Positive Ethics Security Training©
P.E.S.T. Training

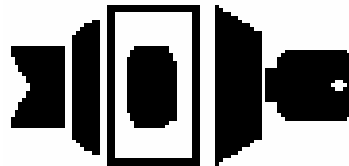
Dictionary Phrase:

Knob & Deadbolt Reference

Remember to use your

Master Locksmith Security Encyclopedias Set© Dictionary©

● Decimal Conversion ● Finishes ● Knobs ● Lever



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Knob, Deadbolt and Other Related Hardware Finishes

03 - Polished Brass.	625 - Polished Chrome.
04 - Satin Brass.	628 - Satin Aluminum.
05 - Antique Brass.	630 - Satin Stainless Steel
10 - Satin Bronze.	633 - Satin Brass
11 - Oil Rubbed Bronze.	652 - Satin Chromium
19 - Black.	669 - Satin Oil Rubbed Bronze
25 - Satin Chrome / Brushed Chrome.	US3 - Polished Brass.
26 - Polished Chrome.	US3 - Chiara
26D - Brushed Chrome	US4 - 04 or 606 = Satin Brass
26D - Satin Chrome	US5 - 05 or 609 = Antique Brass
28 - Satin Aluminum.	US10 - 10 or 612 = Satin Bronze
33 - Satin Stainless.	US10B - 11 or 613 = Oil Rubbed Bronze
46 - Dura Color	US19 - 19 or 622 = Black
5B - Antique Brass	US26D - 25 or 626 = Satin Chrome / Brushed Chrome
605 - Polished Brass.	US26 - 26 or 625 = Polished Chrome
606 - Satin Brass.	US28 - 28 or 628 = Satin Aluminum
609 - Antique Brass.	US32D - 33 or 630 = Satin Stainless
612 - Satin Bronze.	
613 - Oil Rubbed Bronze.	
622 - Black.	
624 - 13 = Duronotic	
626 - Satin Chrome / Brushed Chrome.	

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Grades of Locks

Standard Duty Series	Heavy Duty Series	Marine Duty Series
<u>Arrow</u> - M	<u>Arrow</u> - H	<u>Arrow</u> - S
<u>Falcon</u> - S	<u>Falcon</u> - X	<u>Schlage</u> - C
<u>Schlage</u> - A	<u>Schlage</u> - D	

Americans National Standards Institute ANSI

<u>ANSI</u>	<u>Function</u>	<u>Operation</u>
F75.....N.....	Passage	
F76.....	Privacy	
F77.....L.....	Patio	
F80.....P.....	Communicating	
F81.....DC.....	Entrance	
F82.....AB.....	Entrance	
F84.....AB.....	Classroom	
F84.....AB.....	Classroom	
F86.....S.....	Storeroom	
F86.....F.....	Storeroom	
F87.....S.....	Institution	
F87.....F.....	Institution	
F88.....DW.....	Vestibule	
F88.....DA.....		
F93.....DW.....		
F93.....DA.....	Hotel	
	H.....	Exit
	NB.....	Communicating
	SB.....	Dummy Trim
	DO.....	

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Function to Manufacturer's Number

<u>Function</u>	<u>Arrow</u>	<u>Falcon</u>	<u>Schlage</u>
Passage.....	01.....	101.....	10S
Privacy / Bath.....	02.....	301.....	40S
Bath Emergency.....	06.....	291.....	44S
Patio / Terrace.....	04.....	201DL.....	...
Communicating.....	03.....	161DL.....	25D
Entrance.....	11.....	521DL.....	53PD
Entrance Double Cylinder...	32.....	381DL.....	53PD
Corridor Double Cylinder...	35.....	371DL.....	66PD
Service Station.....	14.....	531DL.....	55PD
Classroom.....	17.....	561DL.....	70PD
Classroom Double Cylinder..	31.....	391DL.....	70PD
Dormitory.....	19.....	571DL.....	73PD
Ridged Double Cylinder.....	33.....	411DL.....	82PD
Storeroom.....	12.....	581DL.....	80PD
Hotel.....	15.....	451DL.....	85PD
Exit.....	07.....	141DL.....	12D
Communicating.....	03.....	161DL.....	25D
Dummy Trim.....	08.....	12.....	170

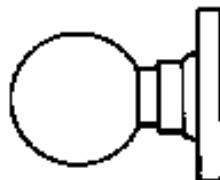
Knobs & Lever Handle Locks

Arrow

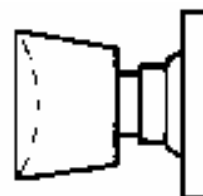
Tudor



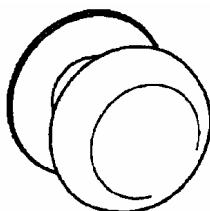
Orbit



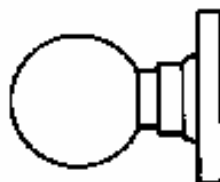
Darrin



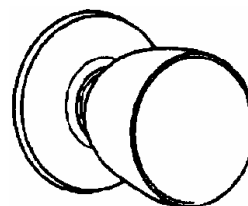
Tudor (TE)



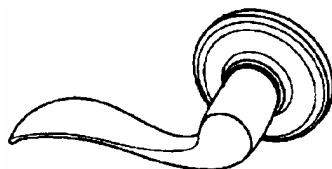
Ball



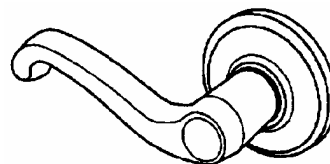
Darrin (DE)



Lunar (LC)

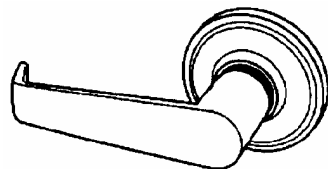


Orion (OC)

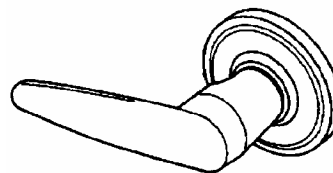


Lever Handles

Solar (SC)



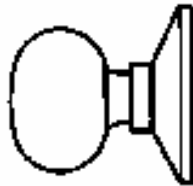
Virgo (VC)



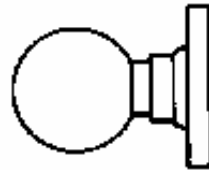
Knobs & Lever Handle Locks

Schlage

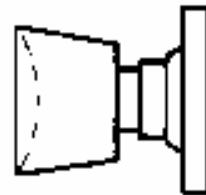
Plymouth



Ball



Tulip



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Hand of door

Single Doors and or Pairs of Doors

The correct Hand Of Door or "Bevel" may be determined by viewing the door from the outside.

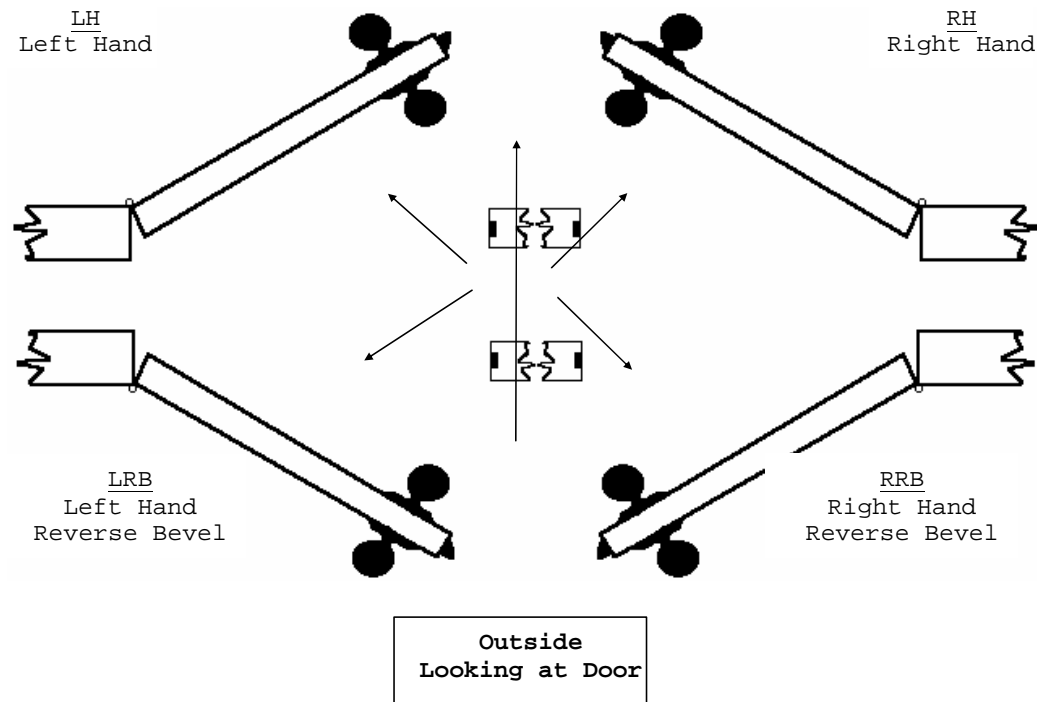
Standing on the Out Side of the door, look at the door and which way it swings and the location of the hinges.

Reaching with your right hand for the knob, and the hinges are located on your right;

If you grab the knob, push and swing the door inward toward the right it is a Right Handed door . If you grab the knob and pull the door outward, hinges on the right, it swings to the right it is a Right Hand Reverse "Bevel" door .

Reaching with your left hand for the knob, and the hinges are located on your left;

If you grab the knob, push and swing the door inward and it swings left it is Left Handed Door . If you grab the knob hinges to the left and pull the door outward swinging to the left it is a Left Hand Reverse "Bevel" door .



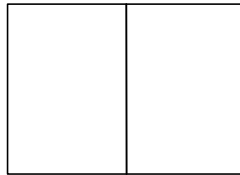
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Slide of Door

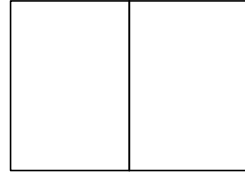
This refers to sliding doors and their passing of one another.
the "X" symbol denotes the sliding panel , while the "O" denotes a stationary panel.

"L" Left Hand, "R" Right Hand.

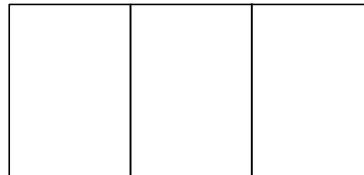
As always viewed from the outside of the door.



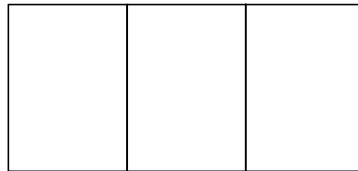
X O



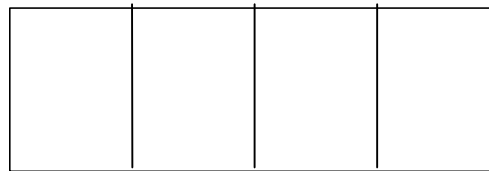
O X



O L X O



O X R O



O X X O

Functions of Knobs and Lever Handle Locks

As you view the following Knob Sets and Lever Sets;
Each Knob Set / Lever Set displayed, is done so with the,
Inside to the Left and the Outside to the Right.

Asylum Lock

Both knobs always rigid. Either key will retract latch.



Bath Room Lock

Push button locking. Can be opened from the outside with a small screwdriver. Turning inside knob releases push button. Closing door should release button.



Bed Room Lock

Push button locking. Can be opened from the outside with a small screwdriver. Turning inside knob releases push button. Closing door should release button.



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Classroom Lock(ANSI F84)

Outside knob / lever is locked or Un-Locked by key, outside. Inside knob / lever always free (Un-Locked).



Classroom Hold Back Lock

Outside knob / lever locked or unlocked by key, outside. Inside knob / lever always free (unlocked).
latch may be locked in retracted position with key.



Closet Door Lock

Latch by knob / lever either side. Both sides always free .



Closet Door Lock

Latch by knob / lever from outside and by thumb turn inside at all times.



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Communicating Doors Lock

Latch by knob except when key locks knob. Blank rose inside.



Communicating Door Lock(ANSI F80)

Key in both knobs / levers. Locks or unlocks either knob / lever independently of the other.

See next description.



Communicating Door Lock

Knob / lever locked or unlocked by key inside.

See next description.



Communicating Door Lock

Key in outside knob / lever, locks and unlocks knob / lever and inside thumb turn.

See next description.



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Communicating Door Lock

Locked or unlocked by key inside. Blank plate outside.
See next description



Communicating Door Lock

Turn button in outer knob / lever, locks and unlocks knob / lever and inside thumb turn.



Communicating Door Lock, Keyless

Latch by knob / lever from either side, except when locked by turn buttons. Turn button in each knob / lever locks or unlocks opposite knob / lever. Each turn button must be manually returned to unlocked position to release opposite knob / lever. This lock should be not be used on rooms to which there is no other entrance.



Communicating Suite Door Lock

Latch by knob / lever from either side, except when outside knob / lever is locked by push button in inside knob / lever or both knobs / levers are locked by key in outside cylinder. Key locks or unlocks both knobs / levers and releases turn button. Rotating inside knob / lever or closing the door releases turn button and outside knob.



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Corridor Lock

Locked or unlocked by key from outside. Push button locking from inside. Turning inside knob or closing door releases button.



Dormitory Lock

Latch by knob from either side, except when outside knob / lever is locked by push button in inside knob / lever. Rotating inside knob / lever or closing door releases push button and outside knob / lever. Key in outside cylinder locks or unlocks outside knob. Key may also be used to release push button.



Dummy Trim

Trim for one side of door. Used for door pull or matching inactive trim.



Electronically Locked Lock

Outside trim continuously locked electrically. Unlocked by key outside or by switch or power failure.

auxiliary latch deadlocks latch bolt when door is closed. Inside trim always free for immediate exit.



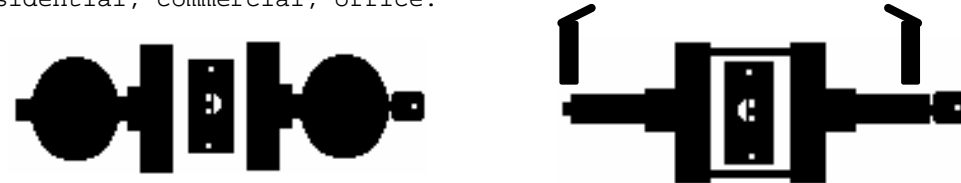
Electronically Unlocked Lock

Outside trim continuously locked until unlocked by key or electric current auxiliary latch deadlocks latch bolt when door is closed. Inside trim always free for immediate exit.



Entrance Lock(ANSI F81, F82 , D53PD , A53PD)

Outside knob / lever locked by pushing and or turning turn button inside. Key outside opens lock. Inside knob / lever always free. Inside turn button must be manually released to free outside knob. Residential, commercial, office.



Entrance Lock F51N

Outside knob / lever locked by pushing and or turning turn button inside. Key outside opens lock. Inside knob / lever always free. Rotating inside knob / lever releases the button and frees outside knob / lever. Unlocking outside knob / lever unlocks inside button. Residential, commercial, office.



Entrance Lock

Latch by knob / lever from either side, except when outside knob / lever is locked by key in inside cylinder. Latch may be retracted by key in outside cylinder or by knob / lever from inside when outside knob / lever is locked.



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Exit Lock

Blank plate outside. Inside knob is always unlocked.



Exit Lock

Unlocked by knob inside only. Outside knob always fixed.



Exterior Door Lock

Latch by inside knob / lever except when locked by key. Outside key will retract latch. Outside knob / lever always rigid.



Hospital Privacy Lock

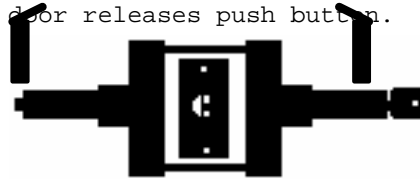
Push button locking. Unlocked from the outside by turning emergency turn button. Rotating inside knob / lever or closing door releases inside button.



Hotel Lock(ANSI F93)

Deadlocking latch by knob / lever inside. Outside knob / lever always rigid. Inside push button projects indicator on cylinder face shutting out all keys except emergency key.

Turning inside knob / lever or closing door releases push button.



Hotel Guest Room Door Lock

Latch by inside knob / lever at all times. Outside knob / lever always rigid. Latch by guest key and master key in outside cylinder except when push button in inside knob / lever is operated, thus shutting out all keys except emergency key. Operating the push button extends visual occupancy indicator on the face of the outside knob / lever. Turning inside knob / lever or closing door releases visual occupancy indicator and shut-out feature. Latch by emergency key in cylinder at all times.



Hotel Guest Room Door Lock

Outside knob / lever always rigid. Latch by inside knob / lever at all times. Latch by guest key and master key in cylinder, except when spanner button in inside knob / lever is operated, thus shutting out all keys except emergency key. Operating the spanner button extends visual occupancy indicator on the face of the outside knob / lever. Turning inside knob / lever or closing door releases visual occupancy indicator and shut out feature. Latch by emergency key in cylinder at all times. Shut-out feature may be fixed in shut-out position by rotating the spanner button in the inside knob with special spanner key.



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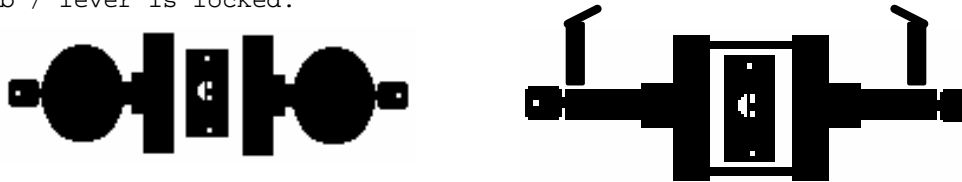
Institution Lock(ANSI F87)

Both knobs / levers always rigid. Latch by key both sides.



Lavatory Lock

Latch by knob / lever from either side, except when outside knob / lever is locked by key in inside cylinder. Latch may be retracted by key in outside cylinder or by knob / lever from inside when outside knob / lever is locked.



Motel Lock(ANSI F93)

Deadlocking latch by knob / lever inside. Outside knob / lever always rigid.
Inside push button projects indicator on cylinder face shutting out all keys except emergency key.
turning inside knob / lever or closing door releases push button.



Office Lock(ANSI F81, F82)

Outside locked by pushing and turning turn button inside. Key outside opens lock. Inside knob / lever always free. Sometimes rotating inside knob / lever releases the button and frees outside knob / lever.
Sometimes unlocking outside knob / lever frees inside turn button.
Residential, commercial, office.



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Office Lock(ANSI F81, F82)

Outside knob / lever locked by pushing and or turning turn button inside. Key outside opens lock. Inside knob / lever always free. Inside turn button must be manually released to free outside knob. Residential, commercial, office.



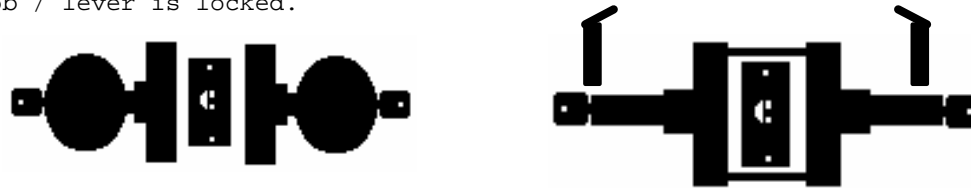
Office Lock

Outside knob / lever locked by pushing and or turning turn button inside. Key outside opens lock. Inside knob / lever always free. Rotating inside knob / lever releases the button and frees outside knob / lever. Unlocking outside knob / lever unlocks inside button. Residential, commercial, office.



Office Lock

Latch by knob / lever from either side, except when outside knob / lever is locked by key in inside cylinder. Latch may be retracted by key in outside cylinder or by knob / lever from inside when outside knob / lever is locked.



Passage(ANSI F75)

Latch by knob / lever either side. Always free either side.



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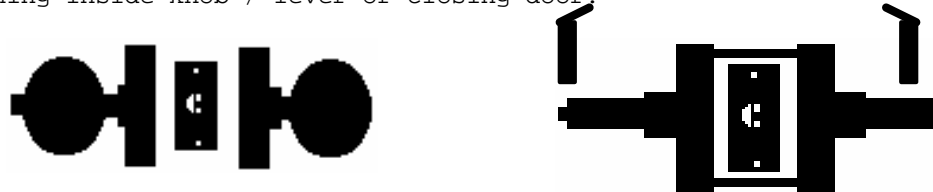
Passage

Both knobs / levers are rigid at all times either side. Key in either cylinder retracts latch.



Patio Lock(ANSI F77)

Outside knob / lever locked by push button inside. Unlocks by turning inside knob / lever or closing door.



Privacy Lock(ANSI F76)

Latch by knob / lever either side unless outside knob / lever is locked by push button from inside.



Privacy Lock(ANSI F76)

Outside unlocks by turning inside knob / lever, or outside emergency push hole or closing the door.



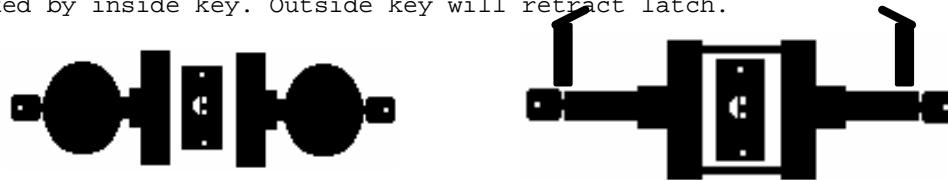
Private Entrance Door Lock

Latch by key from outside knob / lever and by knob / lever inside, except when inside knob / lever is locked by key in inside cylinder. Outside knob / lever is always rigid. Cylinder in inside knob / lever locks or unlocks inside knob / lever.



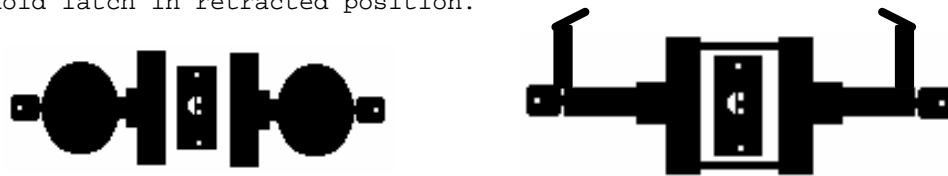
Public Entrance Door Lock

Latch by knob / lever either side, except when outside / lever is locked by inside key. Outside key will retract latch.



Public Entrance Door Lock With Latch Hold Back Feature

Latch by knob / lever from either side, except when outside knob / lever is locked by key in inside cylinder. Latch may be retracted by key in outside cylinder or by knob / lever from inside when outside knob / lever is locked. Key in inside cylinder may also be operated to hold latch in retracted position.



Public Rest Room Lock

Latch by knob from either side, except when outside knob / lever is locked by push button in inside knob / lever. Rotating inside knob / lever or closing door releases push button and outside knob / lever.

Key in outside cylinder locks or unlocks outside knob. Key may also be used to release push button.



Service Station Lock

Latch by knob / lever either side except when inside knob / lever Push-Button locks outside knob / lever.

Unlocked by turning inside knob / lever, closing door or using key outside. Except when fixed in lock position by turning coin slot in inside knob / lever. Key will retract latch.



Store Lock

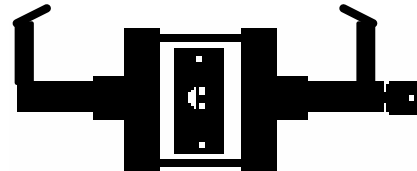
Latch by knob / lever either side, except when both knobs / levers are locked by key in either cylinder.

Key in either knob / lever, locks or unlocks both sides.



Storeroom Lock(ANSI F86, A80PD)

Latch by knob / lever inside, key outside. Outside knob / lever always rigid. Inside knob / lever always unlocked.



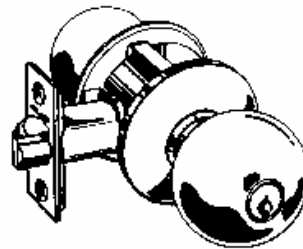
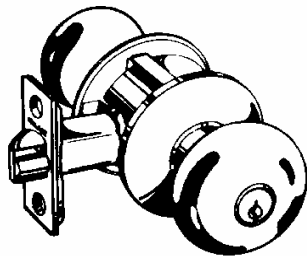
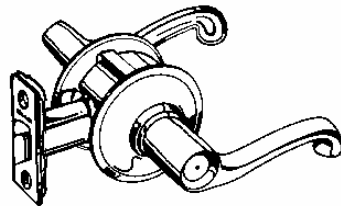
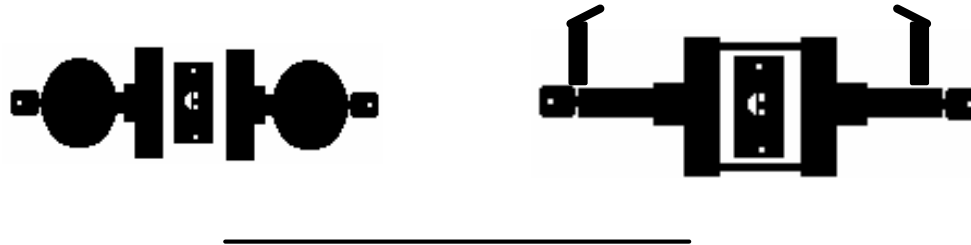
Terrace Lock(ANSI F77)

Outside knob / lever locked by push button inside. Unlocks by turning inside knob / lever or closing door.



Vestibule Lock(ANSI F88)

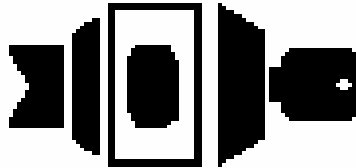
Latch by knob either side, except when outside knob is locked by key inside. Key outside retracts deadlocking latch. Inside is always unlocked.



Deadbolt Locks

Classroom Deadbolt Lock

Deadbolt thrown or retracted by key outside. Inside turn unit will retract bolt only.



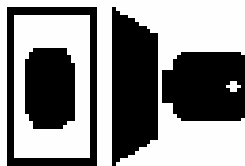
Cylinder Lock Deadbolt

Deadbolt thrown or retracted by key from outside. No inside trim.



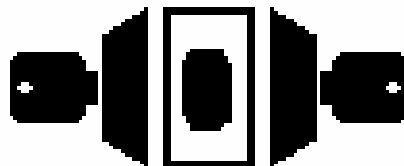
Door Bolt Deadbolt Lock

Deadbolt thrown or retracted by key from one side. No inside trim.



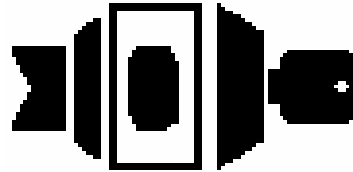
Double Cylinder Deadbolt Lock

Dead-Locking latch bolt retracted by key from either side. No hold back feature.



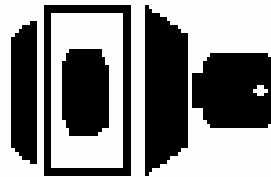
Night Latch Lock

Dead-Locking latch bolt retracted by key from outside or by inside thumb turn unit.
Rotating thumb turn unit and activating hold back feature keeps latch retracted.



One Way Deadbolt Lock

Deadbolt thrown or retracted by key only. Blank plate outside.



Single Cylinder Deadbolt Lock

Deadbolt thrown or retracted by key from outside or by inside thumb turn. Bolt automatically deadLocks when fully thrown.



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Positive Ethics Security Training©
P.E.S.T. Training

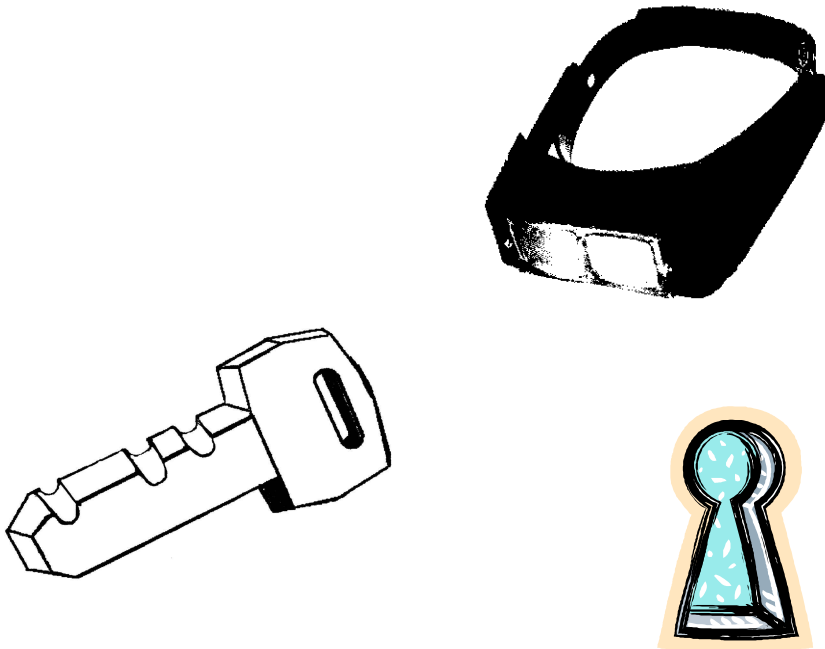
Dictionary Phrase:

Impressioning Keys

The "Art" of Impressioning

Remember to use your

Master Locksmith security encyclopedias Set© Dictionary©



Impressioning Keys

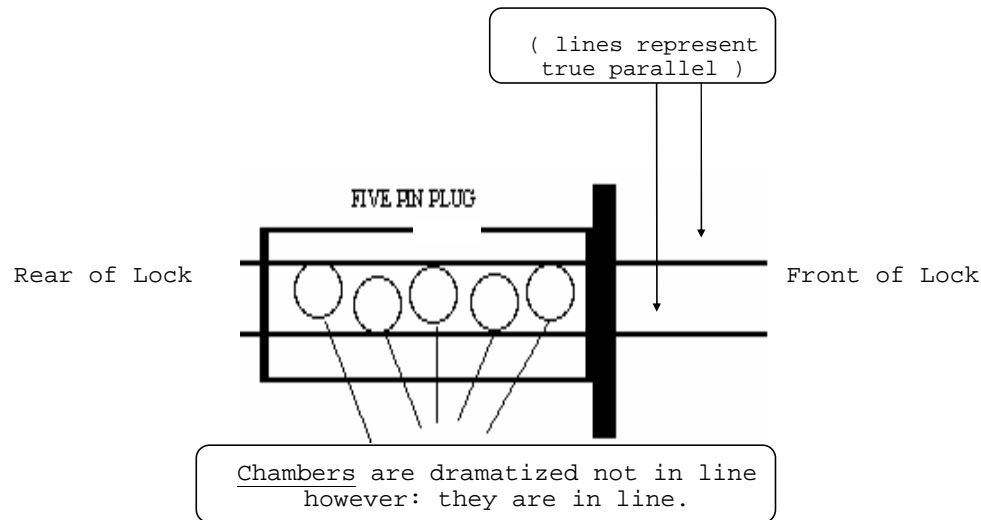
Because of the imperfections during the less than perfect manufacturing process, Impressioning is possible. This imperfection is what allows us to Impression Keys. The Chambers are not drilled in line and thus when torsion is applied to the Lock Plug some Pin Chambers will bind the Pins and allow them to mark.

A quick lesson back to Basic Lock©.

(AERIAL VIEW)

Plug removed from Lock & viewed from top

A Five Pin Lock Plug



Impressioning is a fantastic art which I strongly urge any practicing security individual to learn. Having learned this skill, I have been able to put a lot of bread and butter on my table.

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Anyone can cut a Key by Code and or Duplicate a Key, but it takes an artist to Impression a Key. The person seeking to have a Key Created has exhausted all of their recourses and they need the Master Locksmith Security Specialist©.

This is why I call it the "Art" of Impressioning.

Only one who has practiced and has learned and Mastered the proper techniques can Impression a Key.

I charge for my "Artistic Skills".

And finally when I am contacted and the person is left with no alternative than to call me, the Master Locksmith Security Specialist©, the person will blatantly and arrogantly ask "why do you charge so much"?

First - unless the person is a Locksmith how would they know if the price was high or not. If no one else can do the work, how could the price be considered high. What do they have to compare it to?

And if others were asked a quote and were found to be less expensive, then simply call them to do the work.

Second - the person has most likely contacted thirty other people, has been working on this project for some time and has exhausted all options. Usually this work is requested on the week end, at night or holiday and in the rain. And of course the Key is needed and wanted,..... N O W !

Third - Usually the other Locksmith is very busy and can not touch the work for a week. In other words, the other Locksmith **can not do the work** and tells the client "How Busy They Are".

I do compare my work with that of an attorney and or doctor.

You need to have the most recent; books, updates, information, schooling, tools, etc... Plus not to mention the practice and time invested as well as the funds.

I am referring to a real Locksmith.

Not simply some one who can use Try Out Keys and or even Cut a Key By Code.

I am referring to one who can Impression a Key, Pick Open a Tubular Lock and actually open a vehicle without a Slim Jim.

When these Clients seek this type of Key creation I charge. And when people get cocky on the telephone, I will either raise my price or simply be busy. I know that I can make the Key.

They will say "well if you can't do the work....

It's not "if I can do the work" it is more like you are trying to slick talk me. Your Cheap!

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You do not want to pay me for my professional services.
I can make a Key if I need one. Can you?

**Impressioning, the Ability (Art) to create Keys
when there are none.**

I find that Impressioning does extremely well when performed on motorcycles, trucks, boats, tractors, desks Wafer Locks, Foreign and American automobiles.

I feel this method does not work well on some Domestic Locks or on houses and Aluminum Store Front Doors Mortise Cylinders.
There are some who will argue and say that my preceding statement is untrue, but you can not readily Impression a General Motors Key. If not, it is next to impossible. Although some say it is no problem.
This is due to the Lock being a Side Bar Wafer Lock.

Case History:

When I first started Impressioning, I actually did Impression a G.M. Side Bar Ignition Key. I don't know if I was luck or skill. Probably a bit of both.

A Client called me one rainy miserable day from a junk yard and automotive race shop. When I arrived at the junk yard one of the men took me out back to a vehicle with a half crushed roof a totaled front end. The rain was dripping in the roof onto the front seat. I asked is this a joke?

The man said angrily "No. We need this key". I began my job. The man questioned my method of Impressioning a Key and why was I not performing a Column Break Down? I informed him that I was a Locksmith and that if he would leave me alone I would be through in short time.

When I handed the Key to the automobile dealer forty minutes later he looked quite shocked and asked several times as to which vehicle I made the Key for. He sent his partner out to check the Key. He ran out into the rain. Not because he was afraid of getting wet, he wanted to see for certain if that Key really was made for that car by Impressioning. The Key worked and I was paid.

I realized later through Investigating that the "Joke" was on the vehicle dealer. I guess he and his accomplice had hired me in the rain as a joke, a bet. They had heard I was a new Locksmith and new to the area as well. They certainly found out fast and to their shock that I was a Good Locksmith.

When I learned later in the future the principles of a G.M. Side Bar Wafer Lock, I could not Impression them any more. Oh well, I have tried.

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Many people believe Impressioning is making a clay mold of the Key or sticking wax inside the ignition switch of the vehicle, it is not.

I have had clients insist that, wax put inside the ignition switch was the way to Impression a Key. They would argue with me and I would attempt to explain what Impressioning a Key actually meant.

I have been called a liar and more. But after all, they are the professionals.

When you find wax inside a Locks Key way you will know right away that someone thought that they were Impressioning a Key.

Wax or clay may be used in order to make an "Impression" of a Key by pushing an existing Key into the material, but I hardly think that a true working Key may be made from the Impressed clay.

The clay will dry, shrink, and will not have the true cuts of the Key.

Remember we are dealing in one hundred thousandths of an inch in Depths and Spaces.

The Key may work but this is not Impressioning.

One would have to use calipers and measure the cuts and then use a code machine and try to duplicate the cuts etc....

There is one company that manufactures a medium for this type of Key retention. You make a mold of the Key, usually of a higher degree of security and the Key mold is then kept in a secure place until needed in the future. When needed, the Key mold is then used to create a working Key.

Impressioning a Key has also been described as;
Placing a piece of paper over an existing Key and using a pencil. The pencil is rubbed over the paper and Key, creating an "Impressed Image" onto the paper. This is not however Impressioning to a Locksmith.

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Our Discussion Impressioning Keys

Tools needed for study;

- Key Blank for the appropriate Lock to be Impressioned.
- A Lock that will allow our Key Blank to enter it's Keyway.
- Flat File.
- Rat Tail File or Pippin File (I prefer a Rat Tail File).
- Impressioning Glasses.
- Bench Vise
- A Good source of light (Natural or Man Made).
- Light Lubricant

We will use a Ford Five Pin Ignition switch for this discussion of the Master Locksmith Security Encyclopedia Set© Dictionary© phrase, Impressioning©.

However, if need be a Master Padlock (brand) will work just fine. With the Ford ignition Lock the Key Blank will be marked on the bottom Blade Edge, not the top.

With the Ford Door Locks the Key Blank will be marked on the top Blade Edge side, not the bottom.

Technically the Lock is mounted upside down in the vehicles steering column. Dirt grime and other Foreign matter enters the Key way and it falls down into the Pin Chambers. If dirt, debris or coffee is spilled it will definitely foul the Pins and or Springs. That is why you will be called to work on them.

I always remember by my saying when working with the Ford Five Pin vehicle Locks;

"Doors up, Ignition down".

This is when you need to know with what type of Locks you are working on. You cannot Impression all Keys.

The Ford Five Pin Lock is not a true Double Sided Key. It is a Convenience Key.

You only need one side operating correctly to work the Ford Lock. Thus you have two chances of creating a Working Key with one Blank.

Tip:

I have found that if you file the Key Bow on one edge a few strokes with your Rat Tail File (making a distinct mark), you can keep track of what edge you are Impressioning. The top edge or the bottom edge.

This helps allot when Impressioning a Foreign Wafer Lock and one side of the Key works somewhat and the other side is close and you can't distinguish one side of the Key from the other. A few strokes on one side of the Key Bow will help take out some of the guess work out of which side of the Key you are working with.

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For practice, the Padlock or Ignition should be securely gripped or clamped in a sturdy Bench Vise.

I will take the original Keys if I have them and lay them to the side or better yet throw them in a draw out of site. I try not to look at the Keys so that I am not cheating. I would only use the Original Keys if I feel that I have passed the Shear Line of all of my Pin Chambers and want to compare my Impressioned Key with that of the Original Key.

In Impressioning, it is the sticky / binding action that allows the integrity of the Lock to be violated.

Do not lubricate.

When Impressioning, lubrication is not a necessity as it is in the Picking process.

None. No lubrication.

We want the Pins to bind in their Chambers. This is the only time we actually want the Lock to be sticky.

If need be, because the Lock is greasy or oily, spray the Lock with a small electric motor cleaner, or remote control car spray in order to clean the Lock out.

Brake cleaner in an aerosol can works great for cleaning out all types of Locks. In fact a Safe Person instructed me to use the Brake Cleaner when servicing safes.

Then blow this cleaner type spray with air so that the Lock is dry or wait a while for it to dry.

Tip:

Any files that you use regardless of the work you are doing should only be "Stroked" in one direction.

Holding the handle stroke away from you. Always stroke from the files tip toward the handle.

The file is lifted from the material and the material "Stroked" again.

The file is lifted from the material and the material "Stroked" again.

The file should never be stroked and then stroked or slid backward over the material. The file will be damaged.

Tip:

Sometimes I will use a correctly Cut Space Key. A Space Key or Cheat Key with a 1/4 or less Depth Cut (a nick) in each correct Space along the Blade Edge of the Key Blank.

This Spacing Key may be Cut and spaced with the correct spaced cuts for any Lock that one wants to try and Impression a Key for. This includes Wafer Locks and Pin Tumbler Locks.

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I will either use a correctly Cut Spacing Key and a Key Duplicating Machine with an Impressioning Key Blank and duplicate the nicks onto my Impressioning Blank or I will carefully mark an Impressioning Blank utilizing this Spacing Key. Clamping the two together with a pair of Impressioning Pliers. And carefully filling the Impressioning Blank but do not file the original Spacing Key.

A Code Machine may also be used to Cut a Key with a Cut just nicking the Key Blank in each correct Space.

In this way I know that my Impressioning Blank has the correct spacings on it where the Impressioning Marks should be located.

This pre-marking works great and I highly recommend it.
If you do not have a Spacing Key, do not worry about it with the Ford Five Pin. You will be just fine.

1) You will need a Key Blank for the appropriate Keyway. The correct Blank is important in order to have the Impression Marks appear in the correct places (Spaces).

2) Slide the Blank into the Lock up to its Shoulder.

3) Using a small pair of Impressioning Pliers or Vice Grips (brand), grasp the Blank firmly.

You want to make sure that you use the Mini 4" Vice (brand) Grips after inserting the Key. Especially in a Throated Ignition switch on a vehicle such as a Ford Five Pin ignition.

That is why I chose this type of Lock for you to study with. In order for you to learn to grasp the Key Blank after you insert the Key into the keyway.

The second reason is that the Ford Five Pin ignition leaves great Impression marks.

A Ford Key is stopped and gauged by the Tip not the Shoulder. This particular Key Blank does not have a Shoulder. Looking at the Blank will reveal this.

I would like you to get accustomed to inserting the Key first and then Locking the grips on after insertion.

The deep throat of the Ford Five Pin Ignition will assist you with this Impressioning study.

The reason that you should not grab the Key Bow first and grab it close to where it enters the ignition throat is; the Vice (brand) grip may prohibit the correct Key Blank from entering the Keyway completely if clamped on too close to the Key Blanks shoulder.

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Should this happen, you would receive false Impression Marks in the wrong places on the Key Blank. Clamping the grips on after the Key is inserted and as close as you can to the Lock housing insures that the Key Blank will be gripped firmly and will not slide up and down in the grips.

After the Key Blank is inserted entirely into the Keyway it is then gasped and clamped firmly with the Impressioning Pliers.

I always clamp my Key Blank one way with my Impressioning Pliers and insert the Key Blank back into the Lock one way. In that way I always know which side of the Key I am Impressioning. With a True Double Sided Lock such as a Foreign automobile (with Wafers on both sides of the Lock) it is easy to loose track of which side of the Key one is Impressioning. Especially when one side of the Key has already been filed.

The 4" Vice (brand) grips should not slip up and down on the Key Blanks Bow.

4) Remove your vice gripped Key Blank from the Lock.

5) Still grasping the Key Blank and resting the pliers with the Blank on your knee or other stout object, the Blank is then filed lightly along the Bade Edge of the Key with a Flat File.

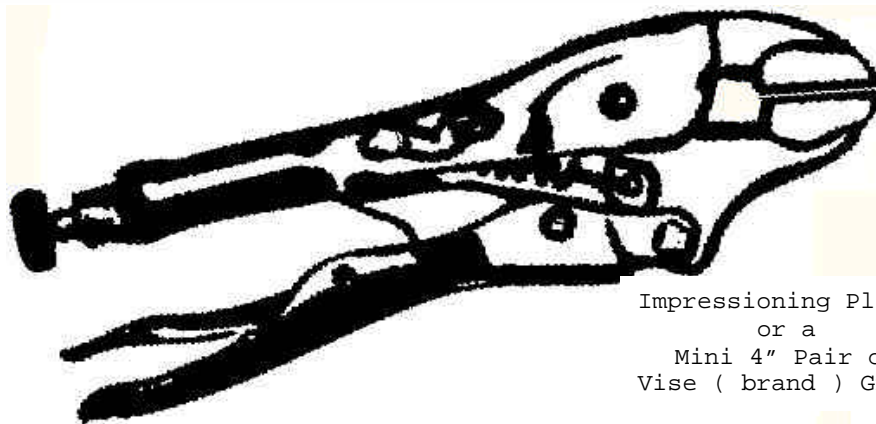
I do not Knife Edge the Key Bade for a Pin tumbler type Lock. I Knife Edge for Wafer Locks only.

I only stroke straight across the Bade Edge to remove the Factory Slag when dealing with Pin Tumbler Locks.

This straight across Filing is to remove the Manufacturers Slag left on after the Manufacturing process. Keep your Flat File straight and true across the top of the Blade Edge of the Key Blank. The Blade Edge of the Blank should be Filed straight and even, not concave in the middle.

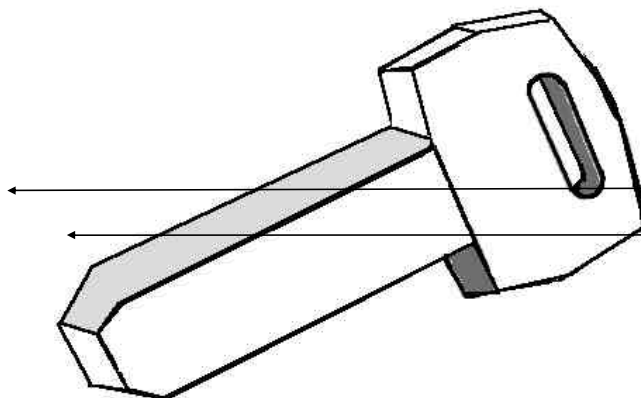
No more Slag should be removed other than to take the shine away. Never more than a zero (0) Depth is removed.

Flat File to remove Factory Slag



Impressioning Pliers
or a
Mini 4" Pair of
Vise (brand) Grips

After Inserting the Key Blank, clamping and removing from the Lock, the shiny Factory Slag is removed from the entire Bade Edge surface with; smooth, straight, even and gentle Flat file strokes.



Flat File strokes.
Smooth, straight,
gentle strokes
straight across the
surface that will
receive the
Impression Marks.

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6) The Blank now prepared, still being gripped, is then again inserted into the Keyway, Impressioning edge down.

7) The Key is now turned Clockwise or Counter Clockwise, in order to bind the Pins in their Pin Chambers. I prefer to turn the Key Clockwise.

When the Pins are bound in their Chambers, you then proceed to hold constant binding pressure Clockwise or Counter Clockwise and rock the Key up and down in the Keyway. Not side ways bending the Key, or turning the Key, but rocking up and down so as to make marks on the Bade Edge.

If you apply too much turning pressure you will snap off the Bow from the Tip and will then have to perform a Broken Key Extraction.

Practice will dictate how much pressure to exert when Binding the Key. Firm would describe the Torsion.

Release the turning motion (binding), Turning the Key back as though you were going to remove it from the Lock so that the Pins are free in their Pin Chambers.

But do not remove the Key from the Lock.

Tip:

After you bind the Pins;

- If you pick up on the Bow first, as you rock up and down, you will Impression the cuts closest to the Tip first and more prominently.
- If you push down on the Bow when you start to rock you will mark more prominently at the Bow of the Key Blank.
- Only the first few up and down strokes mark the Blank. After that the Pins are pushed up into the chambers where they will no longer mark. You must release the Torsion and start the process again.

These rules apply to this particular Lock and are good to remember when Impressioning any Lock.

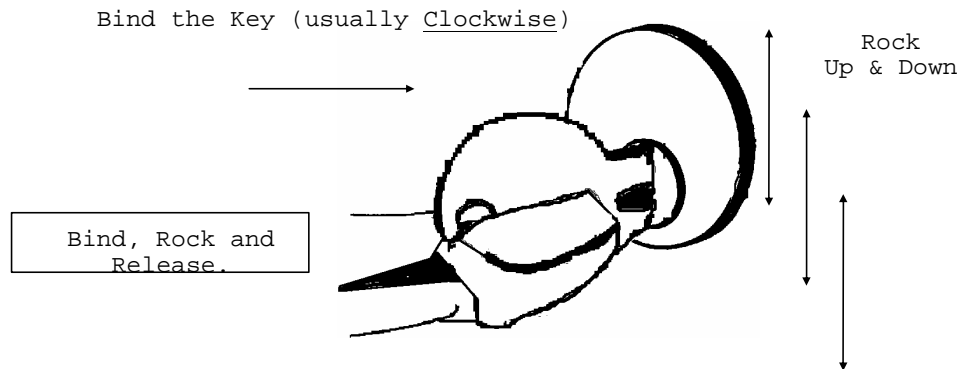
If you continue rocking up and down after the first few up and down movements all you are doing is strengthening your wrist muscle.

Remember to have your Key Extractor handy to Extract the broken piece and start again should you have to. Should you break the Key Bow off.

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Start the process again.

Turn the Key in order to bind the Pins in their Pin Chambers turning in the same direction each time, whether it be Clockwise or Counter Clockwise, always continue in the same direction.



When the Pins are bound in their Chambers, you then proceed to hold constant binding pressure and rock the Impressioning Blank up and down in the Keyway.

Release the turning motion so that the Pins are free in their Chambers. Turn the Key back as though you were going to remove it but do not remove it.

Bind, Rock and
Release.

My motions are quick and deliberate;
Up and down, up and down, up and down.

Turn the Key back as though you were going to remove (but do not remove) and binding again, rock up and down again.

Up and down, up and down, up and down.

Bind, Rock and
Release.

Turning back (releasing the binding) and then binding again, rock up and down again.

Up and down, up and down, up and down.

Always turning in the same direction. Repeat this binding, rocking and releasing about three or four times to a half dozen times.

**A Pippin or Rat Tail File are needed to file
Spaces and Depths**

A Pippin or Rat Tail File

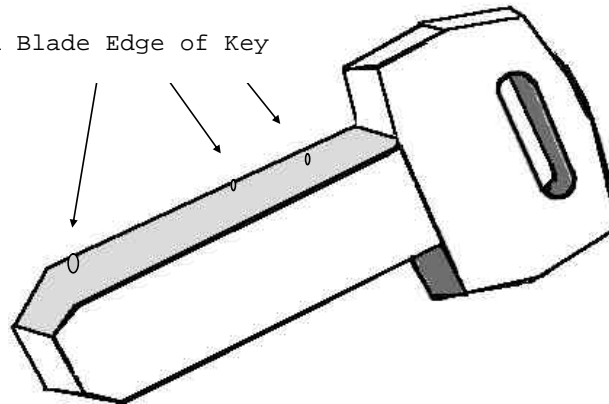


8) Remove the Impressioning Blank and examine the edge of the Key Blank with your Impressioning Glasses.

You should use your Impressioning Glasses when performing the following step.

Still gripping the Key Blank roll the Key Blank back and forth, either under natural light or man made light and try to see if you can identify any marks that might have appeared along the Blade Edge of the Key.

Marks on Blade Edge of Key



If you see any marks on the Bade Edge of the Blank, wipe these with your finger.

As you file with the Rat Tail File, and sharp edges form, you may sometimes cut your finger as you wipe away any grime that appears. Its part of the job. You will charge for it later, believe me.

If the mark wipes away, it was only grease so do not file.

9) If the mark remains, take your fine round Rat Tail File or Pippin File and file one, two, three, easy strokes with just the tip of the file and stop.

Smooth and even strokes straight across the Blade Edge of the Key.

When you see an Impression Mark you know that it can only be at least one Depth. Two or three strokes with the Rat Tail File will just about take you to that Depth of cut.

It is better to be shy than take off to much.

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Smooth and gentle Rat Tail File strokes. You should try to use only the tip of the file. You will break the file tip if you push to hard. File EASY. Practice makes perfect. The cost is about \$50.00 per file.

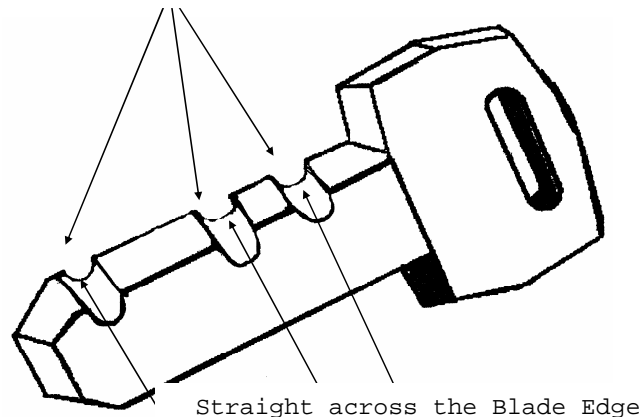
You should only file three or four deliberate strokes and stop.

Follow this procedure for each Impression Mark that you see.

If you do not see a mark, Do Not File. If you are not sure, Do Not File.

If the Space has marks that you are unsure of, using the Rat Tail File, gently, stroke the Space to "Clean" it. Only clean the Space. Take off as little meat as you can.

Impression Marks have been filed Here



10) This procedure is followed by returning the Key Blank to the Lock, repeating the process of binding and rocking, over and over.

I would like to mention that the Key Blank does not need to be un-clamped each time it is removed and inserted into the Lock. Only the initial preparation dictates that it is inserted and then clamped once for the entire Impressioning process. Once I clamp the Blank it is usually clamped for the entire Key Creation process. If the Key slips or comes off of the clamp, simply insert the Key into the Lock again and re-clamp harder this time.

Slide the Blank back into the Keyway and turn the Key in order to bind the Pins in their Chambers and then begin rocking again, rocking up and down.

Up and down, up and down, up and down. Release the Torsion.

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Turn the Key back binding again, rock up and down again.
Up and down, up and down, up and down.

Bind, Rock and
Release.

Remove the Key and inspect it. Rolling it in the light and viewing it at different angles. A helper at night may hold a flash light steady for you as you roll the Key and inspect it in the light .
The marks may appear to be only a dull area or even a scratch. File as necessary.

File Case to protect the Pippin or Rat File
Remember to Protect your Investments.



The flat file may be used to touch up and keep the Bade Edge clean as you Impression.

Some times it may be necessary to take one or two Very, Very Light Flat File strokes across the flat Blade Edge surface again to clean the surface. Never file below a zero (0) Depth. It is possible that a Lock, any Lock, may contain a zero Cut.

The Flat File is then used to take down any sharp points left behind by the Rat Tail File that may prohibit the Key Blank from being inserted or extracted from the Keyway.

Sometimes the cuts will become to steep and or very sharp. Simply stroke these gently so as to round the edges slightly and take the sharpness off.

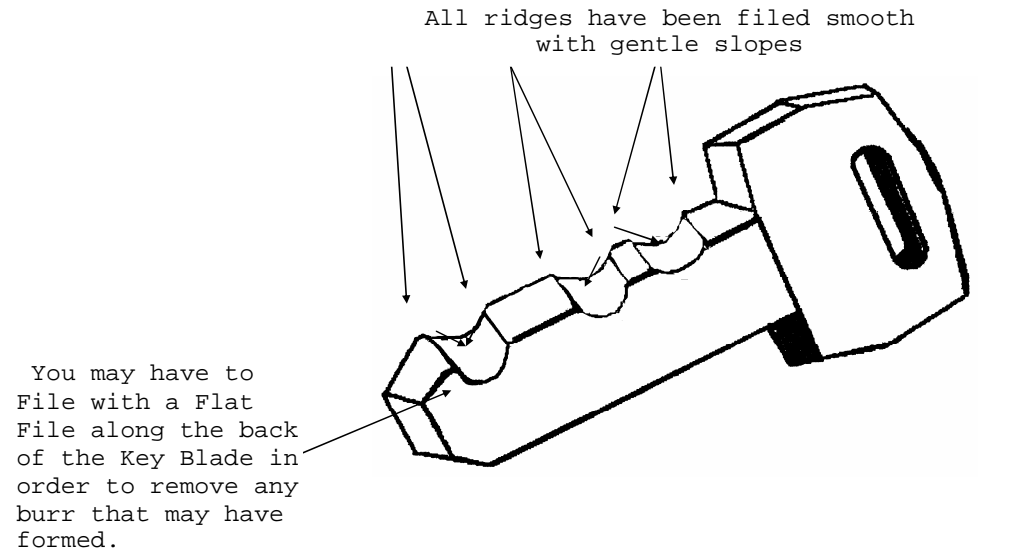
Very light filing is important.

I will not only stroke the sharp points off, but I will use the Flat File at an angle in the Depth of Cut it self, if I feel the Cut is to steep. I remove some of the side of the Depth of Cut and or Space and reduce the slope.

Experience and Practice.

It may also be necessary to use the Flat File and run it along the back length of the Blade to clean off any burr material that may be building up on the back side of the Blade.

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Slide the Blank back into the Keyway and turn the Key in order to bind the Pins in their Chambers and then begin rocking again, rocking up and down.

Up and down, up and down, up and down.

It is better not to file enough than to file too much.

Ford Five Pin Locks are good Locks to practice on with the techniques as mentioned above.

After that, start the binding and then rocking routine again etc...

Repeat.

Some Locks will mark a more definitive mark when they are almost complete and to their correct Depth.

If the Space fails to mark, then do not file anymore.

Eventually the Key should turn in the Lock. It will be rough and hard turning but that is good.

Finish filing again. Remove high points and round edges and retry.

When you are through and have a working key to your satisfaction remove the Key.

Creating the second side should be allot easier.

When you are finished stroke the Bow with a couple of strokes with the Rat tail File in order to mark the original side.

Remove the Vice (brand) grips and re-grip the other side of the Bow so that your grips are in the direction they always are when you Impression. Now with the new Blade Edge insert the Key and start Impressioning the other New Blade Edge side of the Key.

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You can visually see the Spaces and Depths of each cut on the Old Blade Edge and can move along rapidly with the second side during the Impressioning process. You can speed things up quite a bit if you preliminary file some of the Depths by eye on the new Blade Edge of the Key. Roll the Key looking at the good Cuts on the Old Blade Edge and while holding the Rat Tail File gently against the Key roll the Key back over and Stroke the New Blade Edge.

It is better to be a little shy on the preliminary filing, and finish the new Blade Edge by Impressioning.

You could have taken the good Blade Edge of the Key and using a Key Machine copied the Cuts onto a completely new Key Blank. The new Key Blank Cut on Both sides.

You would be using one more Blank.

Or you could De-Code the Impressioned side and Cut a Key either on a Code Machine or Clipped a Key on a Clipper.

If the Key does not turn in the Lock and you feel that you have passed the Shear Lines for each Chamber, Prepare another Blank and start all over.

When you have finally created a Working Key, lubricate the Lock with a light lubricant.

The Client never had a Key that worked so good.

When dealing with Foreign Automobile Locks (True Double Sided) I have had several blanks (with the Bows marked) going at one time. Each key laid out on the dash in a Particular order.

I have had to combine the Cuts on One Key with the Cuts on another Key to make a complete Working Key.

Experience and Practice.

Different Techniques

Foreign and Domestic Wafer Locks

For practice of Foreign Key Impressioning, I like to use a Foreign ignition Lock. For instance, a 1987 vintage Datsun, Nissan, Toyota are great to learn on. The method of Binding, Rocking and viewing are the same. However the Key preparation and the Rat Tail File Strokes are different.

Our Discussion

Tools needed for study;

- Key Blank for the appropriate Foreign Ignition Lock to be Impressioned.
- A Foreign Ignition Lock that will allow our Key Blank to enter it's Keyway.
- Flat File.
- Rat Tail File or Pippin File (I prefer a Rat Tail File).
- Impressioning Glasses.
- Bench Vise
- A Good source of light (Natural or Man Made).
- Light Lubricant

A Key Blank is needed that will fit the Foreign Ignition Lock.
You need to start to acquire Key Blank Catalogues, Key Blank Cross References etc....

Slide the Key Blank down all the way into the Ignition Switch.
After the Key is inserted into the Lock we clamp on our Vise (brand) grips.

A small pair of 4" Vice Grips gripping the Key Bow, should not slip up and down on the Bow.

Tip:

Sometimes I will use a correctly Cut Space Key. A Space Key or Cheat Key with a 1/4 or less Depth Cut (a nick) in each correct Space along the Blade Edge of the Key Blank.

This Spacing Key may be Cut and spaced with the correct spaced cuts for any Lock that one wants to try and Impression a Key for. This includes Wafer Locks and Pin Tumbler Locks.

I will either use a correctly Cut Spacing Key and a Key Duplicating Machine with an Impressioning Key Blank and duplicate the nicks onto my Impressioning Blank or I will carefully mark an Impressioning Blank utilizing this Spacing Key.

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Clamping the two together with a pair of Impressioning Pliers. And carefully filling the Impressioning Blank but do not file the original Spacing Key.

A Code Machine may also be used to Cut a Key with a Cut just nicking the Key Blank in each correct Space.

In this way I know that my Impressioning Blank has the correct spacings on it where the Impressioning Marks should be located.

This pre-marking works great and I highly recommend it.

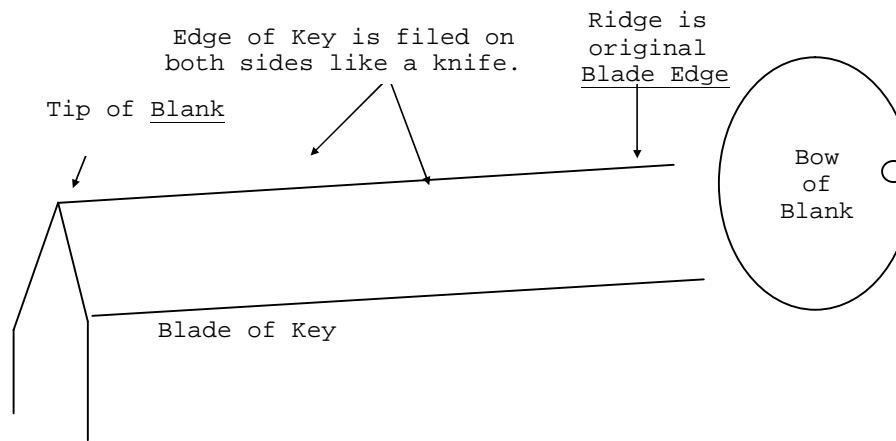
If you do not have a Spacing Key, do not worry about it you will be just fine.

Keeping in mind never to file below the (zero Depth) Blade Edge of the Key Blank.

The Bade of the Key Blank is then filed slightly on either side of the Bade Edge, thus creating a knife like edge.

Knife Edged Key Blank .

A smooth and gradual taper.



When both sides of the Blank are prepared, it is then inserted into the Locks Keyway that is now in the Locked position.

Remember not to file away the edge of the Key past the Zero Bitted Knife Edge.

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Insert this gently into the Key way so as not to mar the Keys Blade Knife Edge with marks.

Binding the Plug gently, but firmly, Clockwise , hold it in that position and rock the Key gently but firmly up and down several times. Release the binding action.

Repeat the process.

Bind, Rock and
Release.

Binding the Plug gently, but firmly Clockwise , hold it in that position and rock the Key gently but firmly up and down several times. Release the binding action.

Bind, Rock and
Release.

Repeat the process.

Binding the Plug gently, but firmly Clockwise , hold it in that position and rock the Key gently but firmly up and down several times. Release the binding action.

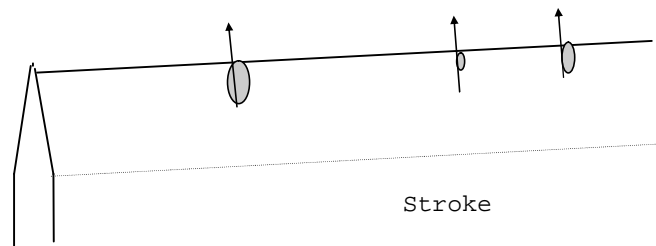
Remove the Blank from the Lock.

Examine the Key Blank along the knife edge of the Key.

File only where you see Impressioning Marks.

The strokes should be with the tip of the rat tail file (Pippin file) and smooth.

Your Rat File (Pippin file) strokes should be at an angle also, just like your Key Blanks knife edge. Not straight across the Key Blades edge as with the Ford Five Pin, but slightly up the Bade and off the edge.



You should use your Impressioning Glasses when performing this procedure.

As you Impression, you will see that by rolling the Key in the light the Impressioning Marks may be seen more clearly.

Some Impressioning Marks are so slight that only the trained eye may see them. Other times it will look as though the Impression Marks were punched in with a tool. Practice, practice, practice.

File where needed.

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Insert the Key. Bind, Rock and release.

Go back to the center position as if you were going to extract the Key. But do not extract the Key.

Bind, Rock and Release.

Repeat the process.

Repeat this process three or four times, then remove the Key Blank and look for slight (slight) Impression Marks.

Impressioning Marks may be seen in their correct Spaces along the Key Blank's edge

Filing only where there are impression marks

Eventually the Key should turn in the Lock. It will be rough and hard turning but that is good.

Finish filing again. Remove high points and round edges and retry.

When you are through and have a working key to your satisfaction remove the Key.

Creating the second side should be allot easier.

When you are finished stroke the Bow with a couple of strokes with the Rat tail File in order to mark the original side.

Remove the Vice (brand) grips and re-grip the other side of the Bow so that your grips are in the direction they always are when you Impression. Now with the new Blade Edge insert the Key and start Impressioning the other New Blade Edge side of the Key.

You can visually see the Spaces and Depths of each cut on the Old Blade Edge and can move along rapidly with the second side during the Impressioning process. You can speed things up quite a bit if you preliminary file some of the Depths by eye on the new Blade Edge of the Key. Roll the Key looking at the good Cuts on the Old Blade Edge and while holding the Rat Tail File gently against the Key roll the Key back over and Stroke the New Blade Edge.

It is better to be a little shy on the preliminary filing, and finish the new Blade Edge by Impressioning.

You could have taken the good Blade Edge of the Key and using a Key Machine copied the Cuts onto a completely new Key Blank. The new Key Blank Cut on Both sides.

You would be using one more Blank.

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Or you could De-Code the Impressioned side and Cut a Key either on a Code Machine or Clipped a Key on a Clipper.

If the Key does not turn in the Lock and you feel that you have passed the Shear Lines for each Chamber, Prepare another Blank and start all over.

When you have finally created a Working Key, lubricate the Lock with a light lubricant.

The Client never had a Key that worked so good.

When dealing with Foreign Automobile Locks (True Double Sided) I have had several blanks (with the Bows marked) going at one time. Each key laid out on the dash in a Particular order.

I have had to combine the Cuts on One Key with the Cuts on another Key to make a complete Working Key.

There is much more to learn about double sided Impressioning that I could possibly tech you here.

These instructions are general and are designed to guide you in the correct direction.

Experience and Practice.

Impressioning Keys for Motorcycles

If you can Impression a Key for a Foreign vehicle, then you can Impression a Key for a motor cycle.

The Wafers are staggered on both sides of the Lock sometimes. Some cuts are obtained on one side of the Key Blank and some are obtained on the other side.

After they are obtained, I then duplicate one side of the Impressioned Blank to a new Key. I then roll my Impressioning Blank over and duplicate side two to the same new duplicating Blank, thus placing all of the staggered cuts on one side of my new Key. I then duplicate that complete side again to both sides of one more Key Blank.

Motorcycles are a bit more tricky, but big dollars can be made. I will charge \$130 for a Key.

I have found that for the most part when ever I am given the honors to create a Key for a vehicle, I am called on last.

If there is a code on the front or side of the ignition housing or shell, I can assure you that the person has most likely already tried to get the Key made by Code.

They have been to the dealer and or other Locksmiths in an attempt to get the Key cut by Code.

The dealers usually (always) can not cut a Key by Code. They will tell you that they do not have the Blank, or machine and or other excuses. The bottom line is that they can not cut a Key by Code and or do not know how.

Most of those previously contacted do not have the Code, Card, Cutter, Key Machine, Blank, knowledge etc, and if they could Cut the Key, then they already would have cut the Key, and they would not be calling you.

The options are now to change all of the Locks.

If this is a Foreign automobile; the door panels must be taken down in order to change the Locks, the glove box and trunk must be picked or drilled in order to change them. Drilling the Locks in the correct place so as not to hurt the paint. And then comes the ignition switch.

Unless the person is familiar with Foreign collar removal and knows the secret procedure to remove the ignition switch collar in order to remove the ignition, the entire steering column must be changed.

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This entails wiring, bolts, and more not to mention will the color of the new or used steering column match the original. And the replacement costs are staggering.

And don't forget the length of time the vehicle is tied up, one must seek alternate transportation. \$\$\$\$.

The dealer might be able to have the Keys cut by Code. If so several weeks to several months may be required to obtain the Keys by Code and then they may not work.

Whether this Code search work is performed by the dealer, handyman or Locksmith doesn't matter, what does matter is to know where to look for the Code. Most people do not know where to even look.

I know I don't. The codes could be anywhere. And usually the codes are not correct anyway.

With most motorcycle Manufacturers / dealers they do not have Codes to their motor cycles. They can not be found. And the dealers will charge \$20.00 for a Key Blank.

The motor cycle Locks are just as difficult to change, just as expensive, and as time consuming.

Ignition, Gas Tank, Side Boxes, Seat and other Locks would all have to be changed.

If their is not a Code to be found and I am given the honors of creating a Key, I know that this is the very reason the person has brought me the motor cycle or automobile.

Impressioning with a Key clipper

By the way, this is another award winning idea of mine.

Sometimes I will use a Key Clipper tool along with Impressioning when attempting to Impression a Ford Five Pin Lock. This technique may be used with other Locks as well.

A Knife Edge is not applied while Impressioning Ford Five Pin or other Pin tumbler Locks. The Knife Edge is used primarily with Wafer Locks.

Our Discussion

Tools needed for study;

- Key Blank for the appropriate Lock to be Impressioned.
- A Lock that will allow our Key Blank to enter it's Keyway.
- A Key Clipper Instrument with the correct Cam and Carriage for the Key Blank we will be using.
- Flat File.
- Rat Tail File or Pippin File (I prefer a Rat Tail File).
- Impressioning Glasses.
- Bench Vise
- A Good source of light (Natural or Man Made).
- Light Lubricant

After the Blank is prepared by removing the slag with a Flat File it is then Impressioned as usual.

Bind, Rock and Release.

After the binding and rocking has left Impressioning Marks, the Blank is then read for marks.

The Impression Marks are noted, the Key is this time De-clamped and then cut in the Key Clipper to a one Depth where each Impression Mark appears.

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The Key Blank is returned to the Impressioning Pliers, Gripped and inserted back into the Lock for Impressioning.

Bind, Rock and
Release.

The Impressioning techniques are again followed and the Key Blank removed from the Lock.

With the Blank removed from the Lock, the Key Blank is again read for new marks.

The Key is de-clamped. Any new marks in Spaces that were not previously marked are Cut to a one Depth and any of the old cuts that were previously Cut to a one Depth that have a new Impressioning Mark in them are then Cut to a two Depth.

The Key is Re-clamped and then returned to the Lock and Impressioned again.

Bind, Rock and
Release.

Again the Key Blank is removed from the Lock and it is Read for new marks.

Any new marks that appear on the Working Bade Edge of the Key that did not mark before are clipped as a one cut.

Any older cuts that are marked are then cut one Depth deeper.

If there are no marks do not clip. If a mark appears cut one Depth.

This continues until the Lock opens (Un-Locks) or you start with a new Impressioning Blank from the beginning again.

This is Impressioning utilizing a Key clipper tool.

It may me necessary to clean the Spaces with the Rat Tail File.

Impressioning is a tough thing to learn, but once Mastered, you are very much needed and you can charge well for this service. Big bucks.

When performed correctly this method is fast and very accurate.

Impressioning with Ultraviolet Light

This method is a little different than Conventional Key Impressioning.

The approach is typically the same as Conventional Key Impressioning.

I have tried this method many, many, times trying to Master it but I never could quite make it work every time as in Conventional Impressioning or Knife Blade Impressioning.

Our Discussion

Tools needed for study;

- Key Blank for the appropriate Lock to be Impressioned.
- Flat File.
- Rat Tail or Pippin File (I prefer a Rat Tail File).
- Impressioning Glasses.
- Bench Vise.
- Ultraviolet Marking Pen.
- A Good source of Ultraviolet Light in the correct wavelength.

First start with the correct Key Blank for the Lock. Remove the Factory Slag and or prepare the Key Blank as usual.

After the Key Blank is prepared I then take a felt tipped Ultraviolet Marking Pen and coat the surface Blade Edge or edges of the Key Blank. It should glow completely when under UV radiation of the correct wavelength.

I then insert the Key Blank into the Locks Keyway and grab it with my Impressioning Pliers. Start the Impressioning Technique of Fitting a Key as you would any other time Impressioning.

After you remove the Key Blank examine it under the correct Ultraviolet Light wavelength as the felt tip Ultraviolet Marking Pen or other ultraviolet marking material.

The ultraviolet material should be worn away and not glowing where ever a Pin has rubbed the Fluoresces away.

This is where you should file.

Where the UV material is gone.

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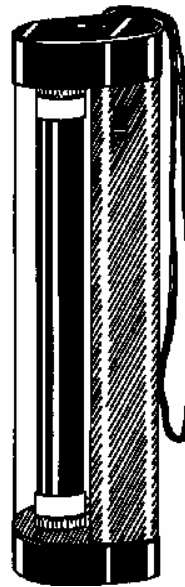
After you file and before you return the Key Blank for more Impressioning Marks, re-coat the Key Blank with your Ultraviolet Marking Pen. Coat the entire Key Bاده Edge surface and return the Key Blank into the Locks Keyway for Impressioning Marks each time.

The marking with UV felt tipped Ultraviolet Marking Pen, Impressioning, examining and filling continues until hopefully you create a working Key.

Ultraviolet Pen



Ultraviolet Light

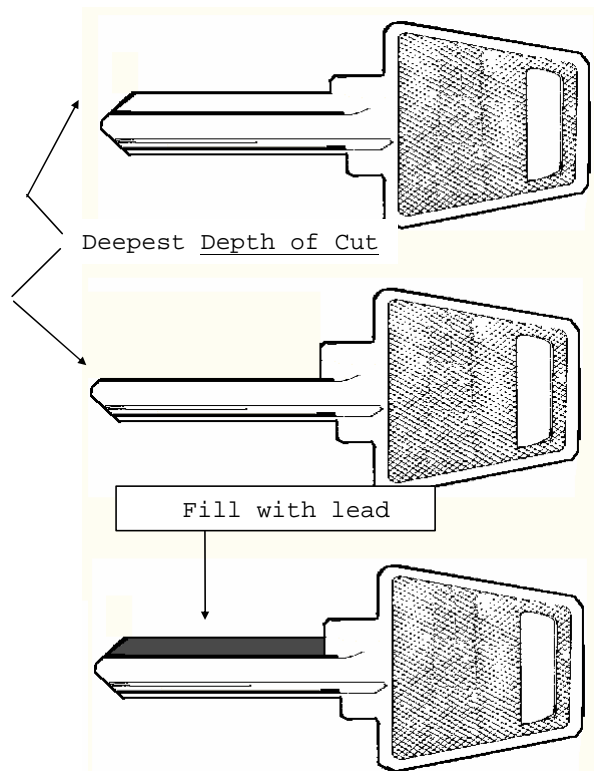


Impressioning with Lead inserts

I have experimented extensively with this method and I did not receive very good results. However, It is not to say that you won't receive good results.

This is a method of Impressioning a Key by which the Impressioning Blank is prepared by removing a portion of the Bade Edge of the Key.

The portion of the Bade Edge of the Key Blank which is removed should be as deep as the Deepest Depth of Cut and run the entire length of the Key Blank. This removed area replaced with lead. The lead being soft aids in the Impressioning marking process.



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I have tried brazing, soldering and so forth, in order to try and join the lead and Blank. Experience, practice and patience. There is a Manufacturer who says they make Impressioning materials. These Blanks are all prepared for Impressioning as any other time. And the Impressioning Technique of Fitting a Key is exactly the same.
Only the Key Blank material has changed.

Flat Steel Keys / Safe Deposit Keys and Warded Keys

This type of Warded Lock may be acquired through a distributor or possibly found on Lockers, Deposit Boxes etc...

The Key Blank does not need to be prepared extensively, except for the Factory Slag that needs to be removed from the edge and sides of the Key Blank. After the Slag is removed, clamp the Flat Steel Key Blank in your Impressioning Pliers. Then light a match or use a candle to Soot the Bade Edge and Bade Sides of a Flat Steel Key Blank.



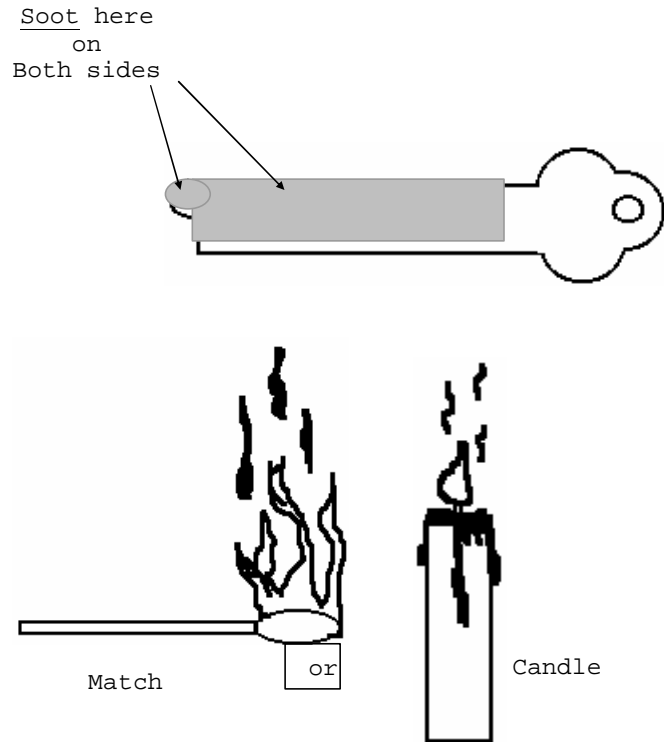
Sooting the Key Blank means, that when an open flame is held below the Key Blank, it causes a black Soot to form on the Bade Edge and Bade Sides of the Key Blank.

This Soot is messy and will wipe off on your finger if you are careless.

While Sooting, roll the edge of the Key so that the Bade Edge sides and Bade Edge are completely covered with Soot.



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Do not wipe the Soot off.

The Pins or Wafers in the Lock will wipe the Soot off for you as they mark. (Make Impression Marks).

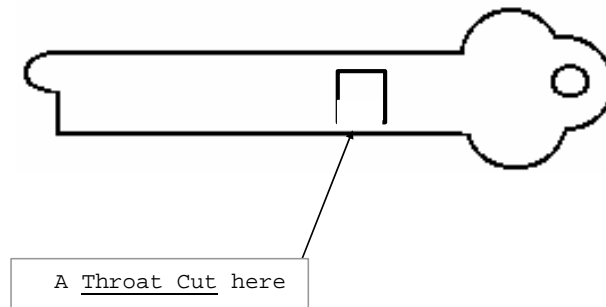
You will most likely need to put a Throat Cut on the Key Blank before it will turn in the Lock.

A Throat Cut is toward the Bow of the Key Blank is necessary in order for the Blank to turn in the Lock.

Still using your vice grips to hold the Sooted Flat Steel Key Blank, insert the prepared Blank into the Keyway.

Bind and turn in the same manner as in Pin Impressioning.

But do not move up and down.



Remove the Blank and file (with a Square File) where the Soot has been rubbed off at the Throat.

The Cuts are "Square". The Cut Sides are not sloped as with regular Impressioning either.

File, "Square. Try the Key in the Lock. If it doesn't pass the Throat file some more. Square.

File this so that when the Key is inserted it will pass the Throat Cut and turn further into the Lock.

Remove the Blank.

Soot the Blank again and re-insert it into the Lock.

Bind and turn in the same manner as in Pin Impressioning.

But do not move up and down.

Simply, Bind and release. Bind and release.

Remove the Blank and file (with a Square File) where the Soot has been rubbed off. File "Square" a little bit and try the Key. Re-Soot. Bind and release. Bind and release.

Remove the Blank and file (with a Square File) where the Soot has been rubbed off. File "Square" a little bit and try the Key. Re-Soot.

This is how the Impressioning Marks are made. By rubbing the Soot off. Your filing should be square and to the bottom of each Depth. If you are unsure of the Depths, file a little and Re-Soot.

A Depth at a time where there are marks.

The Impression Marks will basically be where the Soot is removed.

Again practice is the name of the game.

Square filing is the rule. Not rounded as with Bottom Pins.

Re-Soot and Impression again. Repeat the entire process. Until the Lock opens.

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These Locks are called Warded.

Impressioning takes time, technique & practice. It is an Art.

Flat steel keys are used extensively around Safe Deposit Boxes.

Banks will request this type of work. I have run into Re-Combining a renters side. And or creating a Key, etc. Some Lockers and cabinet locks utilize Flat steel Keys.

A suit case utilizes a Flat Steel Key as well as some garden tractors. A different type and shape, but none the less Flat Steel.

It will take you time to learn and Master the phrase Impressioning, but you can do it.

You should start by purchasing Key Blanks and build your Key Blank stock.

I have used Datsun Blanks in tractors and house Keys in boats.

Padlocks, file cabinets, Lockers, vehicles are all Impressionable.

The Impressioning technique is a field in Locksmithing that I insist on being proficient.

Experience will teach you, and of course, practice, practice, practice.

And remember;

Practice, practice, practice.

Case History: Finding more Locks

After Impressioning Keys to three file cabinets that were Keyed Alike, the secretary tried them and assured us they worked fine. I asked if there were any other file cabinets that she would like worked on and the secretary assured me that there were not.

She billed the work. I normally do not like to bill the first job.

After we left the job, several days later, the secretary called us again.

She said that the Key did not fit several other file cabinets in another room.

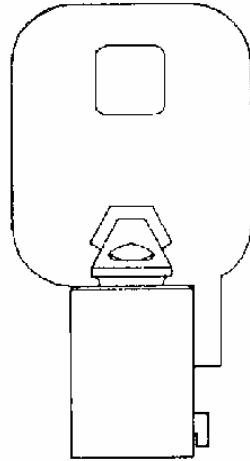
I told her that she did not tell us that when we were there about the additional file cabinets.

She informed us that they had the same code number as the other three we had Impressioned several days earlier, but the Key did not fit. I told her that the Locks could have been Re-Keyed or that there might be a burr on the Impressioned Key. I did not know without seeing it.

She was angry when we told her that there would be a service charge to go back to the site.

She obviously found more file cabinets after we left.

Impressioning The Tubular Key



OD .377"-9.6mm
ID .312"-7.9mm

(BRASS)

1137B

137B

Codes, Codes, Codes

A Key Code is essentially the Bittings of the Key. Usually the Bittings are disguised by the use of a Code. The exception would be a Direct Code.

There are different types of Codes when dealing in this area of Locksmithing / Security work.

For the many types of Keys (manufactures) that exist, there are just as many Codes.

These key types include; Flat Steel, Tubular, Foreign Automotive, Motorcycle, Bike, Boat, Plane, Fork Lift, Desk, and many more all use Code systems.

Some manufactures stamp the Code backwards. This is often referred to as a Backward Code.

Some Manufacturers stamp letters which correspond to numbers.

Everything is always different in Locksmithing / Security.

Some Keys such as Interchangeable Core are read from Tip to Bow and the Code or Bittings are given in order from the Tip of the Key towards the Bow.

Key Codes may be found on the stock invoice such as automobiles, Vending machines, etc...

Key Codes may be found on stickers in vehicle glove boxes, on trunk hinges, on automobile door Lock housings, ignition switches, motorcycle ignitions, helmet lock housings, the bottom of padlocks, and other places. One needs to know where a particular manufacturer placed or places their Codes. Just because there are numbers and or letters on an object does not mean they are Key Codes. Some of these are manufacturing numbers, part numbers, or some other reference number.

You could end up looking up and or cutting countless Code Keys and never have one work the Lock. I have.

This is what to expect when working with codes in Locksmithing.
Codes, Codes, Codes.

When one has discovered a Key Code, they do not necessarily have a Working Key.

Remember? A Key Code is essentially the Bittings of the Key. The bittings are disguised by the use of a Code. The exception would be a Direct Code. A Direct Code is just that. If one were to read the numbers on the bow of key, let's say a Schlage Key (SC1) and the numbers read 73345. These numbers would directly refer to the key code representing the actual cuts from bow to tip 73345.

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Once a key Code is obtained, and it is not a Direct Code, it must first be deciphered and then cut. When a Key Code is obtained, it does not necessarily mean it is real or even correct.

Usually a Code book has all of the necessary pertinent information needed in order to decipher and Cut a Key by Code.

And of course the Code Cutting equipment is also needed.

The trick is to recognize legitimate Codes. Are they correct? Is it a real Code series or just gibberish?

Is the code read as a Direct Code, Blind Code, Backward Code, Backward Reverse Depth Code?

You must always be careful about what you are doing.

Slow and easy is the way to go as you are learning. You are not supposed to know all of this in one day. It takes time, patience, practice, and drive.

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Code Books

Once a Key Code is obtained, it becomes necessary to decipher the Code and obtain the correct Bittings or Bitting Array.

A Code Book is now needed.

Code Books may come in single volumes, groups of Code Books, or contain an entire multitude of Code Books.

Codes are also available on computer disks. Type in the Key Code number and instantly the Code has appeared, as well as the correct Key Blank, Manufacturer and other pertinent information and specifications.

The individual Code Books and complete Code Book Sets come in a variety of options. Multi Manufacturer Code Books, Motorcycle only Code Books, Padlock only Code Books, Foreign Automobile only Code Books, and more varieties.

You can purchase Boat Codes, Locker Codes, Desk Codes etc....

If you were to do work on motorcycles, you would purchase either an individual book of Codes pertaining to one type of motorcycle or you might buy a complete set of Code Books for several motorcycle types.

Your other option would be to purchase a complete Code Book library which contains a variety of Codes for many different Locks including the motorcycle Codes you were seeking.

The Code Books range from a few dollars to complete Code Book sets for over a thousand dollars.

These are similar to reference books a Doctor or Lawyer may use, and as important. This is one reason why I compare myself to that of a Doctor or Lawyer. Code Books do become dated. New Code Books come out every year. It is important to keep updated.

Code books are needed if the work you will be doing is looking up and cutting Keys by Code.

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What does the Code Book offer?

Most Code Books contain technical information and specifications as to the particular Key and Lock one is working with as well as providing the deciphered Bitting Array.

Code Cards which work with some Code Machines may also contain specifications, but not the codes.

Usually the last book of the Code Book Set will contain a Cris Cross index. The index may be used to look up a Keys Code either by the Manufacturer name or by the Keys Code.

The Index will direct you to which volume or volumes and page number of that particular Code Book set the code may be found in.

After looking up a particular Code Series or type of Manufacturer in the correct Code Book volume, the information obtained will tell you which Key Blank to use. It will direct you as to whether the Key is read bow to tip or Tip to Bow.

The specifications (A.K.A.Specs) will tell you the distance from the Shoulder to the center of the first cut (the Spaces) and from the shoulder to the center of each of the cuts. The specifications will also convey the measurements for the Depth of Cut and of course the Code listing for the particular Key Code one is searching for.

Let's look at the different types of Codes there are and the methods we will use when looking the codes up.

Direct Code

Some Domestic Locks have the Codes read and cut exactly as the numbers appear.

A Direct Code is a Code which is read and cut to the correct Depths exactly as it is read.

A Code Book would not be needed to look up the Code. However, the Code Book may be needed to gain specific information such as; the exact Depths of Cut, the Spacing, the distance from the Shoulder to the center of the First cut, type of Key Blank needed, and other relevant information.

Example:

We know from experience or from technical information that this particular Key is read bow to tip.

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Most Domestic Locks are Read from Bow to Tip. There are some which read from Tip to Bow, but for the most part, and for our discussion, we will recognize the Bow to Tip reading as a fact in this case.

Schlage original Keys, right out of the box, have a Code stamped on the bow. This is the exact number the Key is cut to. This is called a "Direct Code." When reading the Key from Bow to Tip, each Code number stamped on the bow of the Schlage Key, represents directly its' appropriate Depth and to its' corresponding Space.

If the Bow were stamped 56374 and read Bow to Tip, then the Depths of cut would be:

A 5 Depth for the First Space, a 6 Depth for the second Space, a 3 Depth for the third Space, a 7 Depth for the fourth Space , and a 4 Depth for the fifth Space.

The Direct Code represents the Depth of Cut exactly.

Some Direct Codes will have a false letter added in front of the Code. Just drop the letter and Read the Code direct. The Code T 88531 would be read as 88531. You will find this type of code on some Manufacturers original keys such as US Lock.

Blind Code

Some automobiles as well as other Manufacturer's use a different Code system. This system is called a Blind Code.

A Blind Code is a Code which is different from the actual Bitting Array. It can not be Read without first looking the Code up.

For example:

You might be told the Code is 7 M 3 5. You would then look this Code up in the latest Code Book Volume index, either by Manufacturer (if it is known) or by the Code. After directed to do so, you would acquire the Code book volume for that particular Code and or Manufacture and look up the Code in it's original form, 7 M 3 5.

We would turn to that Code Series page in the suggested Code book.

The top of the page will contain all of the code series included in this Code list.

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Example: 7J00 - 7Y100.

This indicates that there are also J,K,L,M,N,O,P,Q,R,S,T,U,V,W,X,Y letters in the 7 series.

7J00

7K00

7L00

7M00 *

7N00

And so forth.

We know our code 7 M 3 5, containing the letter "M" in the code 7M35, would be included between the letters J thru Y in the alphabet. We know our Code should be in this Code series.

At the top of the page would be the specifications for that 7J00 - 7Y100 Code series. It would tell you the Lock which the Key goes to (Lets say "Fort Lock"). The information would tell you what Key Blank to use. The Depths and Spacings etc...

Looking through the 7J00 - 7Y100 Codes "J", "K", "L" we find the correct "M" Code series page.

After we find the "M" page the letter would be dropped (In this case the "M") making the Code number we are searching for 7 3 5. Notice how we pulled the "M" series Codes out, dropped the "M" and then read the Code numbers 735.

Now looking under the "M" series codes we begin looking for the Code 735.

We would start to read down the list of numbers for that Code series.

700

701

702

703.....continuing down the list

.....

734

735 - 22543 *

As we looked up 735 it would show some numbers next to it. For discussion let us say that when we looked up the Code 735 it looked like;

735 - 22543.

These numbers are the Depths of Cut (The Bitting Array) for that particular Code. We found it!

Usually we read Bow to Tip of the Key or what ever the specifications advised us for that Code series.

We now have the correct Code for that Lock. 22543. Cut B-T. (Bow to Tip)

Now one must possess the means to cut the Key by Code.

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You can see there is more to a "Key by Code" than meets the eye.
The Client says, "I have the Key Codes." I shake my head.

First question, where did they get the Key Code from? Most people do not even know what a Key Code is, let alone being able to find the code.

Second, how do they know the number they have acquired is even a Code?

The Codes are sometimes written by the Manufacturer incorrectly. The Codes may be recorded and or copied by the Client incorrectly. The Lock may have been Re-Keyed. There are numerous other factors to consider when someone says they have a code.

These are the very reason why I do not guarantee Keys by Code.

This is where Code books and experience are needed.

All Codes and Code Series are different.

Combination Padlocks for example:

"Master brand", will have a number on the back. This is called a "Blind Code."

For instance 0 6 7 G 1 7 7 3 2 Q. You would look this number up in the correct Master Combination Padlock Code book and the Code would be listed beside it.

For instance the letters, numbers may be read 0 6 7 G 1 7 7 3 2 Q.

You would follow the search routine, Index, Volume, Code series, Code.

The Code in this case does not have any letters "Dropped" as with our previous 7 M 3 5 Code example.

In this case the Code List is found, and the Code number 0 6 7 G 1 7 7 3 2 Q is looked up as it is.

After looking up the Code 0 6 7 G 1 7 7 3 2 Q, the correct combination of the Code might be; 30R - 20L - 15R.

Nothing will ever take the place of practice and experience.

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Backward Code

A Backward Code is actually a Direct Code only read backward.
For instance the Code 5 3 6 2 1 would be deciphered as 1 2 6 3 5.
It is very easy. The trick is to know when the Code is a Direct Code
or Reverse Code.

Backward Reverse Depth Code

A Backward Reverse Depth Code is a Code which is backward from being
read direct, and then the Depths are reversed as well.

Example:

A Foreign Ignition Cylinder Code may be read as 424314. This is read
from Bow to Tip.

The Code would be translated backward to 413424. Read from Bow to
Tip.

Then each Depth would be reversed. Read from Bow to Tip.

Example: the #4 Depth would be a #1 Depth, a #3 Depth = #2, etc.

#4 = #1
#3 = #2
#2 = #3
#1 = #4

The code 4 2 4 3 1 4 is read as 4 1 3 4 2 4.

The Depths for the Code 4 1 3 4 2 4 would now be deciphered as 1 4 2
1 3 1. Reading from Bow to Tip.

This why accurate specifications and information are important.

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Ford Ten System Codes

Ford Ten Systems use a different type of "Broken Code."

The instructions are given in the Code Book.

The Ignition and Door Cuts are combined together onto one Blank, so we have one Key which operates both the door and ignition.

A quick look:

The Code Number is broken into segments.

The Door Key, which is the second part of the Code, is Looked up and Cut first.

The door section being cut first allowed us to obtain information on the Ignition Cuts which enables us to look up the first part of the code. The information obtained is now cut on the second part of the key toward the Tip; thus creating a Working Key.

Hey! I did not create any of this. Don't look at me funny.
Codes, Codes, Codes; this is the way it is.

Once the Key Code is Obtained

Once the Key code is obtained and deciphered, the Code must now be cut onto a key Blank.

There are several ways in which this may be accomplished.

Space and Depth Keys And The Manual Key Machine

I strongly suggest for you to work with Domestic house Locks and Domestic Automobile Locks before attempting Foreign Locks. Foreign Locks are for the seasoned, advanced Locksmith only.

A Manual Key Machine may be used as a Code Machine when using Space & Depth Keys.

For you to be able to do this, you will need a set of Space & Depth Keys, or Space & Depth Keys which are cut to specifications for the particular Manufacturers Lock which you wish to create a Key for.

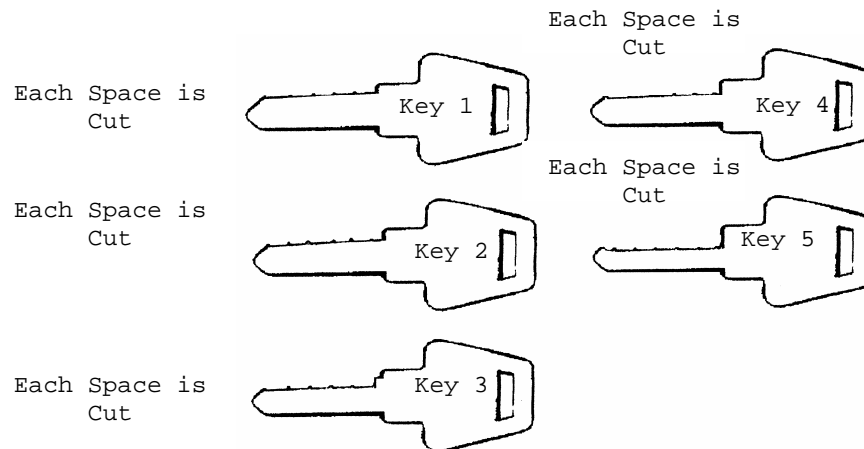
Each Lock Manufacturer has their own Spaces and Depths specifications.

This also is what helps make up the Locks unique characteristics.

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Each individual Key of the Space & Depth Key Set contains one particular Depth of Cut, cut in each of its Spaces, on that one Blank.

- The first Key of the Space & Depth Key Set is cut with all "zero" Depth cuts (No Cuts) along the blade, in each of its Spaces.
- Then the second Key is cut with all "one" Depth cuts along the blade in each of its Spaces.
- The third Key is cut with all "two" Depths along its blade in each of its Spaces and so forth.



This process continues until all of the Depths have been cut.
We will cut as many keys as there are Depths of Cut.

A Schlage five pin Space and Depth set would have 10 Keys. 0-9.
Each Key would contain all of one Depth.
Key # (1) = 00000 / Key # (2) = 11111 / Key # (3) = 22222
etc...

The reason you need all of the Spaces on one Key all cut the same Depth are:
Any single Depth of Cut may fall into any Space along the blade edge of the Key.

Tip:

A Set of Space & Depth Keys may be made by saving original manufacturers keys out of the boxes.

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Over a period of time, and with enough Keys collected, it would be possible to collect the Keys which contained at least one each of the Depths of Cut in each Space position. Even better, some Keys may have the same Depth of Cut in several locations (Spaces).

The Depth of Cut from the original Keys for the particular Space needed would be duplicated to our individual Space and Depth Key. An entire set of Space and Depth Keys could be created this way.

Of course it is easier and less time consuming to purchase the Space and Depth Key Set out right.

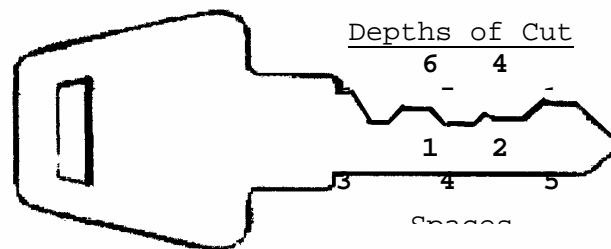
My intention here was to show you the reader that "It can be done."

Cutting a Code Key From Space & Depth Keys

For our discussion let us say you are cutting a Key to a Direct Code;

Depths of 6 4 6 5 1.

6 4 6 5 1. Read Bow to Tip / 6 = Bow Cut in the #1 position.



Your first step would be to set your Key Blank in the Key Machine Duplicating Vise for duplication.

Then you would place your #6 Space & Depth Key from the set in the original Key vice as the original Pattern Key / Code Key to be duplicated.

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You would copy from your Space & Depth Key Set the #6 Depth in the number one (1) Space position, and because our Code is 6 4 6 5 1, you would then copy the #6 Depth in the three (3) Space position to our Duplicating Blank.

Replace your Space & Depth Key with the number four #4 Space & Depth Key and cut this in the two

(2) Space position.

Repeating the process by placing the #5 Space & Depth Key in your vise and copying this in the four (4) Space position.

And then copying the #1 Space & Depth Key and cutting that in the Last (5) Space position.

The Depths, being able to fall into any Space, is the reason you cut all the same Depths on one Blank.

In this way you could easily cut two, number six Depths at the same time.

If our Depth and Space set had only one, sixth Depth cut in the number one Space (that was next to the bow), you would be unable to duplicate this Depth at the tip of your uncut Blank or in any other Space for that matter.

So you need one Depth of Cut in each of the Space positions on a Space and Depth Key.

Remember there are five, six, seven and eight Pin Locks (referring to Spaces). Some Locks with even more Pins (Spaces).

Locksmithing tricks and techniques go on and on.

The average Commercial and Residential Lock contains five or six Spaces.

Depth & Space Keys come in every type of Key imaginable.

Schlage, Arrow, Dexter, Yale, Datsun, Toyota, Rolls Royce, etc....

I have several Depth & Space Key sets for; Schlage, Arrow, Dexter, Yale, Toyota, and 7 Pin Tubular Locks. The Tubular Lock is one which would be found on a soda machine, or at the Laundromat. Many more applications for Tubular Locks exist. Bicycle Locks, motorcycle, Harley Davidson ignitions, Padlocks etc...

The Tubular Key Depth & Space Key is used the same way in order to Cut a Key by Code. However, a special Tubular Key Machine is needed as well as special Tubular Code Books and or De-Coding equipment.

A Manual Key Machine is a great inexpensive way to get started.

The Manual Key Machine will duplicate Keys, and when needed, the Manual Key Machine may cut Keys by Code.

Entire Master Key Systems may be Code cut this way if need be.

Or, one Key may be Cut by Code at a time for Re-Keying. After cutting a Key by Code it may then be duplicated.

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Not all Keys will Vise into a Manual Key Machine. Some Foreign automobile keys and some of the newer super long vehicle keys are the exception. For the most part, the Manual Key Machine will do just fine.

If you had a Manual Key Machine you might buy sets of Space & Depth Keys so that you could cut Keys to Code.

Cutting blades are a concern when dealing with Foreign Keys and High Security Keys. In order to cut particular types of Keys, you need specific cutting wheels.

Staying with basic Domestic Locks, regular Cutting Wheels will do.

When in doubt, ask your Distributor if your Cutting Wheel blade will cut the Blank. You may want to keep a log of this information for your future reference.

Code machines run into thousands of dollars and there are many on the market. One machine uses Depth and Space cards. The appropriate Code Card is inserted into a special viewing window.

After placing your key blank in the vise, you dial out your Depths and Spaces one Space at a time guided by the Code card and cut the Key by Code. It is actually very simple to use. There are no Micrometers needed and anyone can use this machine. It is a good machine when one does not know what they are doing or are un-sure of themselves.

The Code Cutting Machine is expensive. You not only need the machine, but also the cards \$ \$, cutter wheels \$\$ and attachments \$\$\$. My Code machine was thousands to purchase and then hundreds of dollars just to tune up.

There are other types of Code Cutting Machines which have Two Micrometers built in. One Micrometer is for the depth of Cut and the other Micrometer is for the Spaces.

I actually prefer this type of Machine now that I am experienced.

There are no cards to purchase in order to operate this type of Code Cutting Machine.

All that is actually needed is a Code book with Specifications, and then simply dial out the specs on the Micrometers. From what I understand there is no need to purchase extra cutting wheels as with the Card type machine. One Blade does it all.

Tip:

Be very careful on each item, tool, machine, etc. which you may purchase.

The wolves disguised in sheep's clothing abound. You can not say I did not warn you.

De-Coding Keys with the Micrometer

This is a hand tool used for measuring.

A Micrometer is a very useful too in determining the Depths of Cut on a Key. Without the aid of a

Key Machine or Code Cutting Machine at all, one could possibly file the correct Depths of Cut utilizing a Micrometer.

A Micrometer is read in 100 thousandths of an inch. I would strongly suggest learning how to use a Micrometer.



Two types of Key Micrometers

The Micrometer as a Key De-coder

A Micrometer may be used to De-Code an existing Key. Simply Mic (pronounced Mike) each Depth of Cut. Write the Depths down on a piece of paper. If the Key were De-Coded and or read from Bow to Tip, then the first Depth written would be the number one Space next to the Bow.

Pinning Kits have the specification charts for various Manufacturers in them. The actual numbers taken from each Depth of Cut could be found on the specific Manufacturers chart.

Micrometers also come in different configurations, such as the micrometers built directly into some Code Cutting Machines. One Micrometer is for the Depth Of Cut and the other Micrometer is to set the Spaces.

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Key De-Coders

There are several types of De-Coders on the market.

One is a plastic type box in which you insert Decoding Cards

(The same Manufacturer of this extremely high priced tool is the one who manufactured the Code machine with the offer of "Free" Foreign Code Cards).

The cards have all the specifications of a single Manufacturers Key on it. There is one card for each company.

You insert your cut Key to be De-Coded into the plastic box and run the Key bitting guide into each Space. You then read the numbers that the needle points to on the Card. In sequential order.

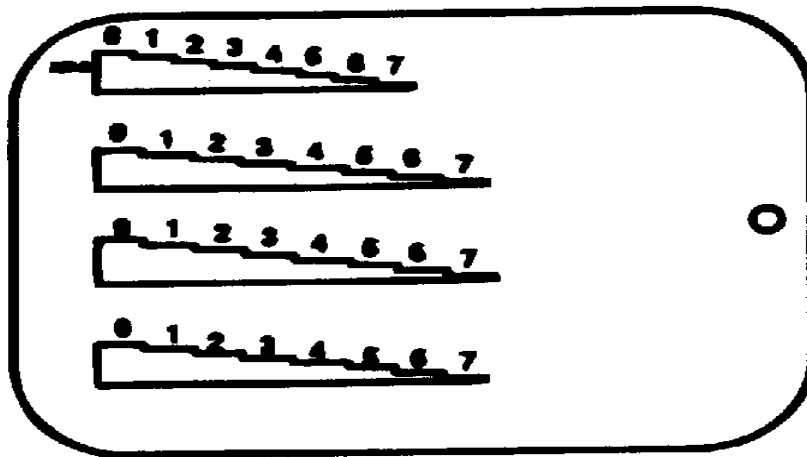
There are the Flat Steel plate De-Coders.

These are steel plates with the Key Depths cut out in a slot.

You slide the Key down the slot for each Space on the Key.

Where the Key stops along the slot is the correct Depth of Cut. Repeat this for each cut on the Key.

It is a pretty simple method of decoding a Key.



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De-Coding a Key with a Key Machine

You can De-Code a Key to see what the actual Depths of cut are with a Key Machine.

However crude this lesson is, I have used it many times out in the field when it was all I had.

It may not be great, but it works. You can use this technique on a Card Code Cutting Machine.

WARNING

Turn the key machine off through out this lesson!

You would vice the Key which you wish to De-Code in the vice of the Key machine. This would be on the side which a new Blank would be cut on.

Then you would begin the decoding process by inserting the "zero" cut Key of your Space & Depth Key set into the Pattern Key vice.

The vice that an original Key would go in if you were to try and duplicate it.

Make sure you have the shoulders on both Key machine vices even.

Check each Depth Key Space with the duplicating guide. As each Space is checked for Depth with the guide, look at the original Key to be De-Coded and the cutting wheel.

You might try to turn the cutting wheel, and if it just misses or scrapes slightly, this most likely is the correct Depth of Cut.

The cutting wheel should just slightly touch the original Key. Write down the Space number and Depth of Cut.

You would write the Code down as if you were Decoding a lock with the Depth and Space Keys.

Write the Depth of Cut above the appropriate Space number, above the dash mark.

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Discussion ON Key Decoding

Bow to tip

Depth

	-----	-----	-----	-----	-----	BT
<u>Spaces</u>	1	2	3	4	5	

You would try each of the Space & Depth Keys in the Space & Depth Key Set starting with the "zero" Depth Key. Set the Duplicating Guide tip in each of the spaces. As the guide is placed in each of the Space & Depth Key Spaces, make note if the Cutting wheel is high or low on the key which is being De-Coded.

If the Cutting Wheel seems to just touch the Key being De-Coded, write down the Depth in the appropriate Space on your sheet of paper. If in doubt if the depth is correct, turn the Key Machine wheel slightly to see if it just scrapes the De-Coding key.

You will perform this procedure with each Space & Depth Key in the set, checking each Space on the Space & Depth Key.

You try the "one" depth key and the "two" depth key, but neither have a space that allows the cutting wheel to touch our Pattern Key.

If you were using the Space & Depth Key Set, and you were using the third Depth Key (#3).

If the Key cuts on the Depth set Key allowed the Pattern Key to touch the cutting wheel in the fourth Space then you would write it like this:

	-----	-----	-----	-----	-----	BT
<u>Spaces</u>	1	2	3	4	5	

3

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You try the "four" depth key, but it does not have a Space which allows the Cutting Wheel to touch our Pattern Key.

The next Space & Depth Key to fit the Pattern Key is a number five (#5) Depth.

This falls in the first and last cuts as we De-Code.

<u>Depth</u>	5		3	5		
	-----	-----	-----	-----	-----	BT
<u>Spaces</u>	1	2	3	4	5	

The next Space & Depth Key to fit the Pattern Key is a number seven (# 7) Space & Depth Key.

This would be in the second cut.

<u>Depth</u>	5	7		3	5	
	-----	-----	-----	-----	-----	BT
<u>Spaces</u>	1	2	3	4	5	

After we have tried several more Space and depth Keys, we find our last Depth Key a nine (# 9) Depth Key is the next Depth Key to fit the original.

<u>Depth</u>	5	7	9	3	5	
	-----	-----	-----	-----	-----	BT
<u>Spaces</u>	1	2	3	4	5	

If the cutting wheel bottoms out on the good original Key, the Depth & Space Key has to deep a cut for that particular original Keys cut.

The Pattern Key that we are De-Coding may have a lot of errors and improper tolerances.

This is due to normal wear on the key.

Half Depths may be encountered if this is the case. Some badly worn Keys may not even be read. You will have to use judgment on Decoding Half Depths. Cut your new Key one Depth shallow for any questionable Depths and mark your decoding paper accordingly.

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De-Coding Locks and Lock De-Coders

Depth and Space Keys De-Code Lock

If you were going to Re-Key a Datsun' Door Locks, you would use your special Datsun Re-Keying kit for that particular vehicle to Re-Key it. In order to cut the new Key for the Re-Bitted Locks you will use your Space & Depth Key set.

If you need to cut a Key to the cars Locks, fitting the Key to the existing Locks on the vehicle,
(Going on the presumption that they are the original Manufacturers stock Locks and have never been changed).

You would attempt get the Code from one of the Locks and look it up in a Code Book in order to cut a Key by Code. Some Codes are found on the Ignition Lock , Door Locks, tags, glove box, inside trunk hinge, anywhere.

Anything goes in Locksmithing.

Some auto Manufacturers put the Code under the rubber Bow of the original Keys.

Well how does that help if you loose the original Key ?

Depth And Space Keys Are Used To De-Code Lock

Using Space & Depth Keys you may also De-Code a Lock.

After removing the Lock from the main body and plug from the shell, you would then insert Space & Depth Key number one and see what Wafer or pin comes flush to the plug. If so, write the Depth and Space down.

Try Space & Depth Key number two. If any come flush, write that plug Space & Depth Key Depth down on paper.

Continue this way until you have De-Coded the Lock.

You might have to do this when a Client has lost their Key and would like the same Combinated Key again. Of course, anytime a Key is lost, the security to the Locking Device has been breached and Re-Keying should be done immediately.

Example:

Not that this has ever happened, mind you. Ahemm...

Let's say it is a baby sitter. She was Locked Out and you have just Picked opened the house door. She says she needs a Key, but the same Key.

This is when you would De-Code the Lock Plug using Space and Depth Keys.

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You would be having a bad day, if after you started to De-Code the Lock you found that the Lock was Master Keyed. Too many pins for the beginner and experienced alike.

Normally this is not the case for Domestic Locks (Residential Locks), but anything can happen in Locksmithing.

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Discussion Lock Decoding

After opening the door you would remove the Lock from the door.
Strip the Lock down and remove the Plug from the lock. If the Plug
has turned in the Shell and Locked back up you will have to Shim
Pick.

You would write on a piece of paper five lines.

_____ BT

These lines represent the Spaces in the Lock. I always write BT or
TB indicating whether I am
De-Coding, Bow to Tip or Tip to Bow.

After the Plug is removed you would hold it in your hand and insert
the First Space and Depth Key with "zero" Depth Cuts. You would note
if any of the Pins come up flush to the top of the Plug.

If not continue with the next Space and Depth Key. If a Bottom Pin
did come flush to the top of the Plug you would make note as to what
position (Space) that it was and write it down in the appropriate
Space in our drawing below.

You would then insert the next Space and Depth Key with the number
"one" Depth Cuts and observe if any Bottom Pins come flush with the
top of the Plug. If so, write this down in the appropriate Space on
your paper. In our discussion a "one" Pin came flush in the third
Space.

Always be careful that the Pins do not "Jump" out of the Plug. Or
you bump or drop the Plug.

Bow to tip

<u>Depth</u>			1			
	-----	-----	-----	-----	-----	BT
<u>Spaces</u>	1	2	3	4	5	

You would then insert the next Space and Depth Key with the number
"two" Depth Cuts and observe if any Bottom Pins come flush with the
top of the Plug. If so, write this down in the appropriate Space on
your paper. In our discussion no Pin came flush in any Space.

<u>Depth</u>			1			
	-----	-----	-----	-----	-----	BT
<u>Spaces</u>	1	2	3	4	5	

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You would then insert the next Space and Depth Key with the number "three" Depth Cuts and observe if any Bottom Pins come flush with the top of the Plug. If so, write this down in the appropriate Space on your paper. In our discussion a Pin came flush in the first Space.

<u>Depth</u>	3		1				
	-----	-----	-----	-----	-----	-----	BT
<u>Spaces</u>	1	2	3	4	5		

You would then insert the next Space and Depth Key with the number "four" Depth Cuts and observe if any Bottom Pins come flush with the top of the Plug. If so, write this down in the appropriate Space on your paper. In our discussion no Pin came flush in any Space.

<u>Depth</u>	3		1				
	-----	-----	-----	-----	-----	-----	BT
<u>Spaces</u>	1	2	3	4	5		

You would then insert the next Space and Depth Key with the number "five" Depth Cuts and observe if any Bottom Pins come flush with the top of the Plug. If so, write this down in the appropriate Space on your paper. In our discussion two Pins came flush in the second and fifth Space.

<u>Depth</u>	3	5	1		5		
	-----	-----	-----	-----	-----	-----	BT
<u>Spaces</u>	1	2	3	4	5		

You would then insert the next Space and Depth Key with the number "six" Depth Cuts and observe if any Bottom Pins come flush with the top of the Plug. If so, write this down in the appropriate Space on your paper. In our discussion a Pin came flush in the fourth Space.

<u>Depth</u>	3	5	1	6	5		
	-----	-----	-----	-----	-----	-----	BT
<u>Spaces</u>	1	2	3	4	5		

We have just De-Coded the Lock. It took about three minutes. Now we will use our space and depth Key set and Cut a key by Code with our Manual Key machine.

I may not use Space and Depth Keys all of the time, but when I need them they sure do come in handy.

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The Space & Depth Key method is used most in the area of Decoding Locks.

The Space & Depth Key method is used most when learning the art of decoding Keys and or cutting Keys by Code. You have to start somewhere, and it is very inexpensive compared to the alternatives.

I now use more professional De-Coders and Code machines. Remember, I also started with the Space & Depth Key sets.

I wanted to show you this type of work and the equipment to be used. Utilizing a; Manual Key Machine, the correct Cutting Wheel, Space & Depth Key sets, and the correct Blank.

General Motors Lock De-Coder



Tip:

I have had one half dozen Key machines in my service vehicle, several lights, and other miscellaneous plug in devices. There were quite a few wires with plugs around.

My solution was to place a piece of colored electrical tape on the front of each piece of electrical equipment and the same color electrical tape on the corresponding plug. This way I could tell at a glance which plug went to what device at my plug strip.

Tip:

Sometimes I will use a correctly cut Space Key. A Space Key or Cheat Key with a 1/4" or less Depth Cut (a nick) in each correct Space along the Blade Edge of the Key Blank.

This Spacing Key may be Cut and Spaced with the correct Spaced cuts for any Lock which one wants to try and Impression a Key for. This includes Wafer Locks and Pin Tumbler Locks.

I will either use a correctly Cut Spacing Key and a Key Duplicating Machine with an Impressioning Key Blank and duplicate the nicks onto my Impressioning Blank, or I will carefully mark an Impressioning Blank utilizing this Spacing Key.

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I clamp the two together with a pair of Impressioning Pliers and carefully file the Impressioning Blank, but I do not file the original Spacing Key.

A Code Machine may also be used to Cut a Key with a Cut just nicking the Key Blank in each correct Space.

In this way I know that my Impressioning Blank has the correct spacing on it where the Impressioning Marks should be located.

This pre-marking method works great and I highly recommend it.

Shoulder an original with Key Blank, and clamp to duplicate.

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Re-Keying Made Easy

I used to cut several different groups of Keys by Code using Depth and Space Keys which I would keep available. I would keep these groups of Keys in little boxes labeled by Manufacturer in alphabetical order.

Example :

Six different Keys by Code would then be cut.

I would then stamp their individual Code onto the bow of these six original Keys.

I would then duplicate from four to a dozen duplicates of each of the six Keys.

These groups of duplicates would be placed onto Key rings. Six rings of Keys by Code, each Key ring would contain four to twelve duplicate Keys with the same Code. I would then place the Original Key on its single own Key ring and hook this to its group. The original Code stamped Key is used to identify the Code of the Keys on the Key ring.

It is used for duplication and identification only.

When on the road, if I needed a Key by Code, I would go to my pre-cut Key groups.

If I had to Re-Key, and if I did not have electricity, I would have Keys by Code and duplicates to give to my client. I always retained the original Key by Code. The key which was stamped with the code. I would use it over and over. When I returned to my shop I would then cut more duplicates to replenish what I had used.

Remember to keep using different groups of Keys.
Rotate stock.

I will keep original Manufacturers Keys when ever I can. I will use these to make duplicates just as I spoke of earlier, and carry them on Key rings for Re-Keying. They are great if you do not have electricity. Plus, they are exactly to Manufacturers specifications.

Well.... KwikSet is a different story.

Yale, Padlocks, Weiser, Falcon, etc... Save them all.

Only factory originals though. Never keep a customers old Key. I always return this key to the client.

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Contracts with employees / **reasonable**

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Positive Ethics Security Training©
P.E.S.T. Training

Dictionary Phrase:

Office Operation and Procedures©

Remember to use your

Master locksmith security encyclopedia set© dictionary©

Adventures Bargain Outlet
Framingham, Massachusetts

EXPLANATION	AMOUNT
PAID IN FULL	

5821

5-20/110

PAY AMOUNT OF	one hundred thirty-nine ³⁵ / ₁₀₀ DOLLARS		
DATE	TO THE ORDER OF	DESCRIPTION	CHECK NUMBER
5/31	NAME HAS BEEN CHANGED	565	5821

CHECK
AMOUNT

\$ 139.35

H. J. J. J. J.
AUTHORIZED SIGNATURE

⑈005821⑈ ⑆011000206⑆ 50 037529 3⑈

Image

To some people in the Locksmithing Trade, Image means everything. To others, it is not as important. I for many years, about fifteen years, dressed casually. Clean jeans and a good flannel shirt. I found that every Client that I ever had (thousands of them) never cared in the least as of what cloths I was wearing. I have serviced Multi Million dollar companies as well as private individuals.

However, some Locksmith's consider everything as "Image."

They will wear a uniform consisting of a special shirt with an embroidered name patch. The shirt might even be bright red or another flashy flamboyant color. The vehicles are out of the ordinary with gigantic lettering all over the vehicles. Retired ambulances seems to be the fashion wherever I have traveled.

The same individuals belong to every organization that one can belong to. The Chamber of Commerce, Locksmith Associations, Safe Associations, Business Men's Associations etc... The average client encountered has never heard of half of the organizations available.

I personally like to remain "Low Keyed." (No pun intended)

I have had custom made Locksmith vehicles, but no one would know what the vehicle was. I am in incognito (Investigator). I do not letter my vehicles. I have had many, many clients request that I arrive in an un-marked vehicle. Such as a Wife Beating, Domestic disputes, Court Order Lockout, employee termination, etc.

Personal preference is really what it is all about. Oh, I am sure that lettering on a vehicle may have helped sales. I also know that lettering a vehicle incites trouble.

"Locksmith" on the vehicle also means Locksmith Tools are inside the vehicle.

Case History:

I know of one Safe Person who had their Van stolen with all of their Safe tools inside. The vehicle and tools were used in a successful bank robbery.

I would have been embarrassed. A Security person lost their Security vehicle?

The Security Vehicle stolen? No Alarm System or preventative measures?

An advertisement in the Yellow Pages and some Calling Cards are really all that is needed along with good, clean, reputable work.

What Is Commerce

Before we begin our office and operations I would like to start with the topic of; Commerce.

Simply put commerce is business.

There is good commerce and there is bad commerce.

My father/dad told me;

"to stay in business, one must make a profit. If one does not make a profit, then one will not stay in business".

How true. Never has it been said any clearer.

The whole object of a business is to generate enough money, so as to pay all of the bills and still have money left over so that one may entertain the thought of paying themselves a salary. How novel.

(I chuckled here).

Even a Not for Profit business must bring in revenue.

I can not possibly explain all of commerce here on these pages, incorporating and other types of business application, but I will try and guide you through the "basics" if you will.

Commerce is at federal, state and local levels.

Federal of course is the nation as a whole. State deals within the state. And local would be the county and or town.

The opportunity to incorporate is available to those in commerce but is not necessary in order to conduct business. Incorporating in short is a way in which to say "we are in business, we want to make money and we are professional".

There are many benefits to being incorporated some of which include;

Your name may not be used or claimed by any one else.

It is possible, to be able, to sell stocks.

And other pro's and con's.

I could not possibly explain all there is to incorporating and I would suggest contacting your state offices for more free information.

Most towns are incorporated. The town is in business (Commerce) and wants to make money. The county that the town is in, may also be incorporated. The county also wants to make money (for projects and "things"). The town or county may be involved in tourism and or other forms of income (Commerce).

Every permit or license purchased in the town and or the county generates Commerce (money). And lots of it.

Licenses and or permits; Animals, parking, dump, business, building, wiring, plumbing, etc...

There are hundreds of licenses and thousands sold. And the town and or county generates money from the sales of these licenses.

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Down stream someone wants to open a business and goes down to their local town hall to purchase a permit to conduct business in the town.

Usually the person is a resident there of. The merchant may have to purchase a [county license](#) first in order to conduct business in that county legally. Then it is possible the merchant now must purchase a town vendors permit in order to do business in that particular town.

We will say that each of these licenses or permits is twenty dollars each. The Vendor (merchant) hopes to generate enough income from the purchase of the Permits and from other moneys he or she will expel on other permits, tools, accessories, etc... To be able to pay the bills and make a profit.

The merchant now has a license to conduct business in that town and or county. Of course this depends on the licenses required. And of course we presume that our merchant has all of the requirements met to perform the occupation that they seek (electricians license, plumber license, chimney sweep license, Locksmith License...).

This is a business that practices Positive Ethics©

The merchant will then most likely acquire a [Telephone Number](#) that has a [Local Exchange](#). The yellow pages telephone directory [advertising](#) would probably be next on the agenda.

Possibly the lease or rental of a store would be in order.

And of course a post office box for mail.

The purchasing of any permits that may be needed for re-wiring, plumbing, etc...

A sign permit to go with the new sign, and more purchases and installation services may be needed.

Thus all creating Commerce.

The printer is needed to print [Calling Cards](#) with the new [Telephone Number](#) and new P.O. Box number, sales receipts, and other office needs.

Remember that we are discussing Commerce.

"to stay in business one must make a **profit**. If one does not make a **profit**, then one will not stay in business".

And you can clearly see all of the revenue and commerce created by One Individual showing Interest in a community. Money.

The services generated and products needed for other business to create commerce is wide spread around town.

The electrician is bringing in commerce from their getting a wiring job from the installation of the new merchants sign.

Which in turn will most likely entice the electrician to purchase all of his operational needs (licenses, permits...) next year as well as other merchants who benefit.

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The gas station, tires, gas, vehicle wear and tear. The hair dresser for hair cuts, the sandwich shop for lunches, the grocery store, trash pick up, laundry, furniture, appliances, etc... The list is endless.

Everyone benefits.

The town and or county has taxes and quotas to meet.

If one hundred dollars are needed (for tax) and there are one hundred people, then each must pay one dollar to meet the needed one hundred dollar demand.

If there are only fifty people in town then each must pay two dollars in order to meet the one hundred dollar demand.

So, if one hundred dollars were the requirement and there were two hundred people then each would only have to pay .50 cents.

The more people working and paying their share of what is due then the less each individual pays (supposedly).

The more people that the town can generate money from, the more income there is. The more money that is generated brings the town closer to meeting the required quotas and generating a Profit.

Each business and patron should contribute to the well being of the other people and businesses in town.

If the people and businesses of the town and or county do not support the local businesses, they all suffer.

The local merchant who is passed up and "injured" (in business) so that someone else from out of town is hired for the same job, suffers.

The merchant who is injured may purchase one less hair cut or not be able to buy the furniture, house, swimming pool etc..

It becomes one less calling card, one less trip to the printer.

One less stop at the fish market or sandwich shop.

If the other people of the town spend their money elsewhere than hiring the "in town" merchant, then the injured merchant will not have the funds generated and profit made to **continue business in that town and or county. If the merchant feels it necessary they might just pack up and leave town all together.**

This is bad for the town and county because of all the revenue they will loose not only from all of the merchants permits and things, but from the loss of all of the other vendors profits from sales.

The merchants Clients may come to town and purchase other goods as well from other vendors. There is definitely a chain of events.

Whether the people of the town do this vindictively or not, it is bad for commerce.

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The hair dresser was thinking of purchasing a swimming pool which in turn would have created many additional jobs.

The excavators, inspectors, designers, pool builders, licenses, toys etc...

But because the injured merchant or merchants moved elsewhere (another town, another county or another state) the hair dresser made that much less commerce and put off purchasing the swimming pool.

Less taxes paid, and other losses incurred by many.

The injured merchant may possibly take their business elsewhere.

Thus a view of commerce.

My following episode is used to illustrate bad commerce and the final outcome.

Bad Commerce

Case History: Break in Number One:

5/6/2000

Madisonville Tennessee.

The local gravel pit "Rodgers Group" called 5/3/2000 and asked us to come out to a Break In.

I had previously been to this gravel pit several months earlier (1999) and had secured the premise from an employee termination (firing).

They had tried to call the "other guy" "out of town" "from another county" but were unable to reach them.

I told the women in the office that I installed Security Systems, did Safe work and performed most Security applications. I explained that we install electronic security systems and that we would be glad to help.

They had me install a lock on a file cabinet, recombine a keyed lock on a sentry fire two drawer records safe and re-key several doors. The sentry fire safe instructions may be found in my safe book and this safe is actually not meant to be re-Combined.

I told the women in the office that they should install a deadbolt on the door where a hole was partially drilled. They said "no".

I suggested that they use a better safe against burglary. They said "no".

Everyone commented on our quick response time.

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Case History: Break in Number Two:

Well anyway I returned to the site. There was a broken window next to the door where the robber had broken the glass reached in and Unlocked the door (as I had predicted). They had broken into the sentry fire safe and made off with the money. The perpetrator (s) also vandaLized the office. It was clearly done by someone who knew the office. They had gone directly to the safe and new exactly how to break it open.

Everyone again commented on our prompt service.

I suggested that they install a security system.

I explained again that we install electronic security systems and that we would be glad to help. The women were surprised and had not thought about installing an alarm system.

I master keyed the door knobs and installed a double cylinder deadbolt on the door. We ordered 5 re-keyable padlocks and master keyed them. We tried to price a new safe and or fire safe replacement again, but Liz and I ran into the same manufacturer / distributor run around. The episode is accounted in my book "safes".

On the third day upon our arrival the women in the office had certainly changed their attitudes. They were cold and when I mentioned the safe the women told me that they had already purchased one.

Then when I commented about a security system the two women informed me that they were already having one installed.

The Mcminn County Locksmith from sixty miles away.

I then mentioned that I also installed electronic security and the women both acted surprised saying in a well rehearsed tone "we didn't know yunns installed alorm seestems".

Liz and I left.

Now as an investigator I know very well that these women were coaxed and coached.

Everyone commented that our service are tops, so why hire another security person? Most people want bundling not twenty different people. One stop shopping.

To say, "we didn't know yunns installed alorm seestems" is a foolish and weak attempt at best to not use my well known services.

They should have said "we know someone who does that type of work and have asked them to do the job". That would have been more acceptable.

But to act as though you did not know, is inexcusable.

It is so obvious.

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To have the people "turn face" just like that is unusual unless they were coached.

It is similar to the Sherborn Massachusetts service station and my performing work for five years. I offered unsurpassed service to George and then the owner turns and hires another company from sixty miles away to do all of the security work when he renovated.

He had been coached.

His father was a Sherborn Massachusetts Police officer by the way.
Aaaa hheeeemm.

The gravel pit women had been coached. By whom?
By the Madisonville Tennessee Police. It is obvious.
There was a break in and the police had been notified.
When the Madisonville Tennessee Police heard that it was me performing the lock and key security work they suggested to the women to use someone else.

Of course the people always listen to the police.
All of this is very bad commerce by the way.

When the women said that, I was already doing the lock and key work what should they do? The Madisonville Tennessee Police simply said that is all right but have someone else do the alarm system. In that way John Clymer can use his key but the alarm will prohibit him from entering further into the building.

As though I were the one who would break in.

You would think that the women upon hearing that I install security systems would have asked how much a security system would cost.
If at the least only to compare prices. I was standing right there!
The women did not ask. (PI).

Everyone acts as though you are so stupid and or ignorant and you do not think and or analyze anything at all. The Madisonville Tennessee police simply will not acknowledge that I do anything.

Investigator, detective, writer, locksmith etc...

There are other little comments and things that are said and done which will entice one to ask why?

John is local. Go with John. John is reliable. John performs unsurpassed security work.

The local tennessee police would never say that.

"Damn Yankkee Trash".

The McMinn County Locksmith is located in a different county.

And then to have the madisonville tennessee police take business away from me is absurd.

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There is animosity and insult here.

Thus I will leave this area and take my commerce elsewhere.
Where my Positive Ethics© and hard work is appreciated.
The town is in business and takes their commerce to another county.
When I leave I will take quite a bit of commerce with me as I have explained earlier.
Everyone looses.

And when the madisonville tennessee police put in for raises of six thousand dollars more per year and they only get five hundred dollars more per year they simply will not understand why there is not enough money (profit) for the raise.

They should want me to do more and more work. The more work I perform the more taxes I will pay. The more permits and licensing I will acquire. The more rentals and telephone lines and electricity I will use.

UPS makes more deliveries, etc.

There are many more accounts I could attempt to tell and explain, but to keep things brief I will generalize. The next episode has happened more than once.

I will be frequenting an establishment, purchasing goods and or services and will identify myself as a locksmith security person and will hand the merchant my calling card.

Several visits later upon entering the establishment I will notice;
New cylinders mounted on the store front door.

New fire crash bars mounted on the fire doors.

A new safe behind the counter. A new security system. A new camera surveillance system. Etc...

I do notice these things. I am an investigator and perform these aspects of Locksmithing Security Work. So I do notice.

The people act as though you are stupid and do not know.

Each person who was hired came from out of town and usually from out of the county.

Each of the security providers/installers did not patronize the establishment which hired them at all.

Yet each installer made good money on the installations.

Instead of turning the money back around and creating good commerce, the merchant hires someone else to install the devices they need, who has never spent a dime in their establishment.

Then several months down the road when trouble with one of the security systems arises the installer can not be located.

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The merchant waits until a Saturday or Sunday at midnight to call me.

They expect me to drop everything and wait on the merchant hand and foot as though it was indeed an honor to perform their clean up work.

And of course the merchant wants to "Bill It".

I am supposed to know exactly about their system, which ever system it is that needs my expertise, and when I quote a price they can not understand why my prices are so high. I am then either hired reluctantly and with a nasty attitude or I am not hired at all.

In either case the merchant is angry with me and this leaves a sour taste in both our mouths. I have been through this countless times.

I will go and perform the required work on an inferior product and the merchant acts as though I am the one who sold them the junk.

The merchant always acts as though they are doing you this big favor because they asked you to do some clean up work.

I have had people comment how they are letting/allowing me to work on their equipment.

Eventually, I am angered and I will stop patronizing the store.

Why should I patronize an establishment that will not patronize mine?

My not patronizing their establishment hurts them the same way that they hurt me by not patronizing me and eventually they might go out of business. Animosity is a good word to use here as well as survival.

This is bad commerce. Bad commerce for everyone.

There is no balance here.

Good commerce is when you turn the money around.

The merchant is purchasing your lock products and you in turn purchase their products. Or visa verse. It is actually a very simple process.

These are only a few examples of good commerce and bad commerce.

It is up to you the reader to determine which commerce is right for you. Negative Ethics© or Positive Ethics©.

In Madisonville Tennessee USA there are a lot of drug attics, thieves, scoundrels, cheats, criminals, food stamp people, social security people, welfare recipients etc...

More people do not work there in Madisonville Tennessee USA, are lazy bums, and are bad, than there are good people who work.

One would presume any good commerce should be welcome.

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For the town of Madisonville Tennessee, the county of Monroe Tennessee, the town of Sweetwater Tennessee and the county of McMinn Tennessee to act as though someone with good commerce and Positive Ethics© is not needed and is run out of town is very, very, very bad commerce. And does not make sense.

Now, I am not just taking my commerce with me, I am a writer and am instructing others not to fall into the pit and do business here in Tennessee as well. Again adding to bad commerce.

It is quite obvious that the people and the state of Tennessee do not know how to conduct good commerce.

If you want good Commerce do not open shop in Tennessee.

As you can see the above story created animosity and bad commerce.

What Goes Around Comes Around

Case History: client Quote #1 Boxes & More Inc.#2

Jim Hudson Owner
107 West Main Street
Havelock, NC 28532
Phone 252-447-2026
Friday, January 19, 2001

We gave Boxes & More Inc.#2 of Havelock NC a quote for an Alarm System. Boxes & More Inc.#2 also rents trucks. I gave them my seventeen page installers tip pamphlet including information on acquisition and ADT, free.

I was in the process of acquiring a building down town to rent for my Locksmith School.

I was not hired by Mr. Hudson. Instead he hired ADT out of Raleigh NC. Or should I say ADT a National conglomerate was hired, period.

A Tyco™ security company.

The loss of this sale injured me, so that I decided not to acquire the school, which meant that I would not rent the truck for three days from Mr. Hudson of Boxes & More Inc.#2 located in Havelock.

So you can see, it is a chain reaction of events. This is Commerce or should I say very poor commerce.

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Case History: Distasteful Chief Encounter

Wednesday, March 20, 2002

Today the **Newport North Carolina Police Chief** called while it was pouring rain outside. He expected us to jump and run directly to his town and open a "Womans" vehicle. We quoted \$38 and \$18. He was surprised.

Our regular rates.

We have not heard from him in over a year and a half of our being here in Havelock North Carolina. October 7, 2000.

I love the part it is a "Female" and I especially enjoy the pouring rain part.

Disrespect, Arrogant, contentious obviously a New American©.

The commerce is non existent to say the least.

Again, if I were called several times a week I would have gone out for nothing and helped the woman.

Reverse Commerce

Tennessee has the strangest commerce I have ever seen.

The businesses in tennessee such as automobile dealers and mobile home dealers work on reverse Commerce (backward).

These dealers do not expect the citizens of tennessee to pay the bill.

Statistics show that tennessee has the highest social security programs and help programs than any other state.

The people of tennessee do not work.

The dealers can not wait until the first of the month rolls around.

The social security checks come out on the third of the month.

The dealer will smile and sell a vehicle and or mobile home to any body. They know that the person will never make the payments and the vehicle and or mobile home will be repossessed. This is where the dealer makes their money. Repossessing and selling again, and again, and again. They will sell the same item over and over and over.

The dealer not only received a dozen payments (if that) before the repossession, but after the repossession retains the goods as well.

The dealer then sells the item again.

That is why, when someone who pays their bills such as Liz and I and wish to purchase, the dealers will not sell to us.

We will pay off the vehicle and or mobile home, own it, and the dealer looses out.

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Not to mention that a "damn yankee" paid the debt off.
The other tennesseans look bad, like bums. This is reverse Commerce.

The dealer does not want the bill paid off. The dealer knows that eight out of ten people will not pay and the item will be repossessed. The dealers bank on it. The dealers will smile and talk to anyone (except a "damn yankee". They want non payers, not, payers).

Sloans auto sales in madisonville tennessee told Liz and I to "come back in six weeks".

Norman lee realtor in madisonville tennessee told Liz and I to "come back the next time it is raining".

This all has to do with reverse commerce. And some to do with yankeeism.

Dean plemmons of madisonville tennessee is probably using our dwelling as a tax write off.

Why else would he want us to move so bad? Our paying all of our rent all of the time looks bad. He wants the dwelling to show a loss in order that he may file a tax loss against it. Liz and I make the place look like a profit maker. "damn yankees". Why else would dean plemmons of madisonville tennessee refuse a ten dollar gallon of paint and a two dollar paint brush in order to keep a tenant ?

The client moves out and the landlord must now spend three hundred dollars preparing and advertising in order to acquire another tenant.

Another tenant that the tennessee landlord knows will not pay their rent. Another eviction with papers.

A loss. Over and over again to the government.



Good Commerce

After living in Havelock North Carolina for two years one store actually called me to do some work. That's correct.

Liz and I rent a computer from the rental center. The rental center manager called and requested our services. Upon our arrival I said thank you and explained commerce quickly to him and he understood. He commented he would not have it any other way and he believes, if you do business with him he will do business with you.

The A.B.C.'S of Locksmith Operations

Start By Protecting Yourself On Paper

This starts anywhere you want it to, legally.

I suggest to start with the i.s.s. Authorization form. This form is a suggestion and is in no way a guarantee of any sorts.

I will not guarantee anything in locksmith security work.

I take no responsibility in the out come of this security release forms use. In any way shape or form.

A copy of my security release form is in this literature and may be copied. Just add your name to the top.

I designed this form and helped word it. It is a very powerful authorization security work release when used correctly.

Before you perform any work, make sure that it is signed and dated by the party requesting the work.

You may want to check with your attorney on the legalities of this form and consequences that may arise from its use. And even then the answers the attorney gives you should be taken at a face value if you believe the answers at all.

The wording reads similar to this :

I hereby certify that I have the authority

(this states that this person who is signing the form, is in charge and will take responsibility for the complete payment, blame, and outcome of the work that is about to be performed. This may be an owner, brother, sister, parent, boss, manager, anyone.

To order the lock, key or security work designated above.

What ever you have written on the form above their signature, they are responsible for.

Further, I agree to absolve the locksmith who bears this authorization, from any and all claims arising from the performance of such work.

This covers you two ways :

It relieves you from any claims saying the lock or work does not work or fails.

It also covers you if you opened a; house, car, or what have you, and the person authorizing the work had no authority to order the work to be done, thus making your work illegal.

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Any claims that arise from this action are absorbed by the person who signs your form.

Net 30 days 1.5% (in some states you may legally charge interest on over due bills).

I find this useful when you have a client that is well into their second month of an over due bill and is not paying or has not tried to pay their bill.

Tack on the interest and send a second bill, stamped
" past due ."

This usually pushes them into paying. However, I have found that most people and very large companies will not pay the interest, period.

The large multi billion dollar j. Marsh company let their bill go without payment for a half dozen months or more. Your little bill is of no importance to them, you can wait. I have waited for almost a year and the super well known company now part of macey's would not pay the interest.

But, when I was over one month due on my bill from purchasing their product they charged me interest.

When I refused to pay the interest; they not only put it on my credit history, but they kept the interest each month collecting interest, each month. Compounded and I had to pay or else. Or else what ?

To continue

Any and all legal fees to be paid by.

(this is great, they pick up the tab. If it ever did come to small claims or even an attorney being involved they are responsible for any bills incurred.)

The first thing I do upon arriving at a job is to, fill out the security work release form as much as I can, including the service call fee, And have them sign it.

I will not perform any work without a signature.

I do not write down what I will do or prices until I am finished. I do not know exactly what I will do, things (plans) change and so does the price.

Then when I am through, and only then, Do I write down exactly what I did and the prices which were previously discussed.

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I charge for each individual project that I do.

Example :

Pick open 3 cylinders.....	@ \$\$\$\$	
= \$\$\$	@ \$\$\$\$	
Shim pick 2 cylinders.....	@ \$\$\$\$	
= \$\$\$	@ \$\$\$\$	
Rekey 1 cylinder.....		.
= \$\$\$		
Bore 2 holes , prep and chisel.....		=
\$\$\$		

I have used this form for many, many years and through thousands and thousands of clients and it always stood up.

I do not total the bill until I am ready to hand the bill to the client.

I will ask one more time, "is there anything else I can do for you ?" Sometimes at this point they will say, " yes, may I have two more keys cut? "

You will notice that I try not to mention anywhere how much to charge.

I found that because of the wide spread demographics I cannot give any valuable advice as to what to charge where you might be located.

I will tell you not to under charge yourself and your work. Do not revert to low balling.

Charge what you are worth. You are worth every penny.

Look at what you had to do to get where you are:

You were inquisitive.

You had initiative.

You had motivation.

You had the patience to practice and learn.

Congratulations !

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Dealing with the public

Only experience will guide one through these choppy shark infested waters. The Snakes© abound and Pirates© are everywhere.

There are as many ways to run a locksmith security business as there are fish in the ocean. All that I can do is tell you what has and or has not worked for me.

I have found that I am the "Catcher©". I am the last one to be called. I am the clean up person.

Most people will try to get the work, any work accomplished at the Cheapest (not inexpensive) price. Usually when someone calls me, they have exhausted all of their resources. I know this and always keep this in mind. When someone calls and asks if I can copy or duplicate a key, red flags pop up. I all ready know that the "easiest thing to do" and the "Cheapest thing to do" is to have gone to the hardware store or Walmart. So that, when the person calls me for a "copy" they are desperate. Someone will call and ask if I install hardware. Red flags pop up.

Your hardware or my hardware. Most often enough the person is "Cheap" and has already purchased the lock at the hardware store at an "inexpensive" price. I myself would have liked to have made the sale and accumulated a little profit. However, the person is Cheap and purchase the lock at the hardware store and now needs someone to install it. The hardware store does not install locks, they only sell them. Well when someone calls I charge them more to install "their lock" than if I were to install "my lock".

You see most likely the "Cheap" person purchased a "Cheap" lock and there will most likely be something wrong with it. Either the client will run back and forth to the store or you will run back and forth. I do not have parts to service the lock and I can not gaurentee it, etc.... It is not worth it.

Let's take a closer look at the "duplicate key".

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4/17/2000

A woman calls and says that she has a gate key and needs a duplicate made. Red flags popped up.

Why call a locksmith for a "duplicate key"? The average person goes to the hardware store.

The hardware stores either do not have the correct key blank or do not know what type it is.

A neutered key bow or no markings (*Plain Coined*). If I ask the person if there are any identifying marks on the key blank, they most likely will answer with a "name" or say no.

The name "Yale", Sargent, Arrow, Schlage, etc, mean nothing. Each of these manufacturers make dozens if not hundreds of different keys.

In other words the person is saying "no one knows what they are doing and I need your expertise".

I am thinking in my head that I need to make a minimum of \$25.00 per sale or it is not worth it.

Remember, that I am mobile without a store front and I am available twenty four hours a day.

Liz quoted the woman duplicate key prices range from \$2.50 up to several hundred dollars.

The woman says that the key says "craftsman". After hemming and hawing that a key (that no one else can cut or identify) is only worth a dollar decides to come and have us give her an estimate.

Liz explained to the woman that at 5:00pm in the evening when everyone else is closed we do not give "estimates" we want the work.

Liz explained that we are not about to tell her all of the juicy information for free so that she can go to the hardware store tomorrow and have the duplicate key made. The woman slammed down the telephone.

4/18/2000

The same people called (different voices but we know) and had a gate key that was to an American Padlock and asked how much a duplicate keys was. Another lesson I would like to point out here is that if you notice out of the blue the same type of call will come in over a week or two period for approximately the same work. Similar to the Geo Storm we worked on. For the next four days we received calls for a Geo Metro, Geo Tracker, Geo Storm. Coincidence? No. It is the same party seeing if you had ripped them off. Or you were trying to rip them off.

They might ask about the same vehicle but only have a friend call. I then say "the prices did not change. They are the same as I quoted your friend this morning". The person will act as though they know not of what I speak. And they are really thinking with their little mind "How's the locksmith know that"? Da.

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Any way back to the American Padlock. Red flags should pop up.
First the party is calling a locksmith for a duplicate key.
Second, american padlocks are usually sold through locksmiths only and are not store bought.
This indicates to me that another locksmith made good money on selling these special order locks and should follow up with same with good service. The party calling me indicates that the original sales person can not be found and that my expertise is now needed.

Liz asked the basic questions and when Liz asked "have you tried to get the key duplicated anywhere else"? The calling party snapped "should I"?.

My comment would have been "yes. That would be the most logical thing to do. Go to the hardware store first". Which by the way is already what the "Cheap" person had done.

The calling party rudely hung up the telephone on Liz.
All of this for a dollar key. That dollar key is worth thirty dollars to me.
All of the key crosses, key identification, machines, codes, cards, cutters, practice, school, generator, batteries etc....

The people who call think the locksmith is stupid. We all of a sudden get many calls requesting the same type of work.

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Cheap is Cheap

The people being Cheap will bring me the already purchased elsewhere parts and then ask me if I will install them.

The people being Cheap, wanting to spend as little money as possible, will purchase Cheap (not to be confused with inexpensive) materials and then want me to install them.

Usually when I wish to have professional work performed I ask the technician what they think is the best course of action and then I have the same person purchase the parts that they need in order to complete that job correctly.

Can you imagine purchasing parts at the local auto parts store and then asking the auto dealers mechanic to install the parts?

The people of tennessee who are on the welfare, social security, food stamp and other programs are being Cheap.

They will not get a job.

I did. I worked on a farm in tennessee for only five dollars an hour.

I never missed one day of work in over a year and a half. And I would not be given a raise.

"Damn Yankee".

Bids Bite

One major problem with bids are the contents of the bids.

Such as:

You walk through a site with the owner and they say, "i want that knob changed and that lock changed." And so on.

You must find out if they want the locks changed or rekeyed ?

There is a big difference.

All of a sudden they say, "oh, yeah, I need those five doors over there done also."

Done how?

Now did they tell everyone else bidding about those five extra doors?

Those, all of a sudden, " oh, yeah five doors.", Are another thousand dollars added to the bid.

These questions make a big difference when all the other bids come in and your bid is two thousand dollars or more higher than all the rest. Listen to what the client says and the words they use.

Talk the talk and walk the walk.

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Questions; changed, rekeyed, oh yeah?

Oh boy !

I have mentioned this on many a bid and the owner will say, "no I didn't tell any one else about the five doors, I forgot."

Beside the stock there is also labor.

You might want the bid to be written out as to the quantity of doors, name locations, rekey or hardware to be used etc....

A hardware schedule received and or sent by fax or mail.

You should submit your bid in writing.

And you should date it with a closing date.

I have had people call me several years later and tell me to go ahead with a bid. Thirty days is tops. Even then I have returned to find walls, floors and entire buildings are constructed. A lot can happen in thirty days.

It's crazy.

Take your time when estimating a bid.

When the laymen calls over the phone and asks for prices you are indeed putting in an unwritten bid.

How many knobs ? What's a knob ?

A knob is that round hardware you grab with your hand and turn to go out or in through the door. What type of knob???

Are there any deadbolts ? What's a deadbolt ? What type???

Are they double or single cylinder ? A cylinder is where ever you stick a key in. If you stick a key in the outside and stick a key in on the inside it is a double cylinder.

If you stick a key in the outside but have a thumb turn on the inside it is a single cylinder deadbolt.

Do you have the existing keys ? If not, I might have to pick. If I pick a lock cylinder it is \$x amount per cylinder, not per door. The door could have a dozen locks mounted on it.

Do you have a key with you ? Could you read any numbers or letters to me ?

If they give you a number (y1) you would know it is a yale lock. Ar1 = arrow / kw1 kwik set. Etc...

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Bids Bite Too!

A trick that apartment and condominium complexes pull is the following.

The maintenance department usually needs to get three or more bids to turn in to their head office in order to complete a particular hardware installation. They usually all ready have a friend or family member (nepotism) to do the work.

But they need three bids to turn in. They will call you and make appointments. If they do show up at the site it is usually late or, if at all.

They will take and use your time through the estimate and ask all kinds of security questions. Some of the questions asked should alert you to the fact that they have already consulted with someone else.

They will use a phrase or word that only a professional would use not a laymen. Rekey. Recombined. Do not dupe etc...

They will take your time at the site and ask you to submit the estimate in writing.

Your time, several hours at night comprising and calling for prices. Of course it is your time , stamp and envelope that will send the proposal.

They never had any intention of hiring you at all.

I have tested this by taking a chance.

I gave super low prices on high security locks that would have cost me money. (low balling) (investigator) .

Anyone actually asking for bids would have re-questioned me on the stock I was to use and the bid price being so low.

No one questioned at all.

I did not get the job.

A little investigating showed me that I did not loose the bid to low balling. I lost it to nepotism.

Case History:

This is a great example:

Diagnolly and across the street from our duplex in madisonville tennessee is an apartment complex.

The Say Brook Apartment Complex located on Isbill Rd. They called me and asked if I could give them an estimate on "master keying" two doors and install one new door knob.

They did not know that I lived across the street.

I dropped my "service call" and quoted half price for the re-keying.

The total bill was under \$50.00.

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After all I only had to cross the street. They did not higher me.
I did "bait" them just to see what they would say and do.

How to Charge

Let's create a scenario.

There is a woman (Person), (A Layman) who has broken her Key in her vehicles ignition switch. The car is at the very large local shopping mall and it is noon.

The woman (Billy. We are in Tennessee at the time of this writing the Females have male names and the males have female names.) decides to call a "Friend" who owns a local service station. Billy then asks the Service Station what to do? Her friend comments that they are busy and "Covered up" and that at best, he could tow the vehicle back to the "Yard" and possibly get to her car tomorrow afternoon. Billy then whines out "My Kids. My Kids. Whhhhhatle I do in my Kids"?.

Her friend says that he is sorry, but that it is the best that they can do.

Billy then asks how much is it gonna cost?

She is told the price of \$50.00 in order to tow the vehicle back to the station and put the vehicle in the "Yard". The Assessment of the Damaged Ignition and the Cost of the Parts is additional. Billy asks "How Much is the repair"?

The "Friend is Un-Sure and quotes \$150 to two hundred dollars.

Billy hangs up the telephone, Dazed.

The "Fine Print" if one were to look would also include;

If Billy does not have the Service Station repair her vehicle after it is towed back there, a Twenty Five dollar a day storage fee will be Imposed upon her bill and a Lean placed against said vehicle. I have seen people loose their vehicles when the Storage bill is more than the vehicle is worth.

* Billy after calling family and friends calls the Locksmith.

The several Locksmiths that she calls may or may not work on Billy's particular vehicle. When most of the Locksmiths found out that the vehicle utilized a Foreign Double Sided Key, they ran like cock roaches. And any Locksmiths that said they could work on the Foreign Double sided vehicle, conveniently were busy for the next two weeks.

Now Billy makes contact with You The Locksmith Professional.

You are The Locksmith Professional. The Locksmith Security Professional who advertises in many telephone directories. You The Professional Locksmith, are available 24 hours a day for Full Professional Security Service.

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You The Professional Locksmith know about her vehicle and what to do.

You The Professional Locksmith have the tools, knowledge and expertise to accomplish the job professionally, correctly and in a timely manner.

Billy has Kids (children) who dictate Now!

The day most likely has been used by Billy trying to be "Cheap" and have a Friend do the work.

You the Professional Locksmith, have a service call to go out on a service call. This is equal to the service Stations Wrecker Fee.
\$50.00.

Please be aware that the service call to go to the site does not reflect any prices of the work, tools parts and labor performed at the job site. That is to get You The Professional Locksmith Technician to the site. If it were someone working for you and they went out after the store was closed you would have to pay, Time and a Half.

This is for the technicians Time, Nothing Else.

After you the Professional Locksmith arrive at the site you include in your charge a NOW FEE.

This Fee is applied (in your mind) before the actual Locksmith work is performed.

You see, this charge is similar to the "Yard" storage fee.

The service station had a chain Link "Yard" in order to secure the vehicle while it waited to be worked on. You however are not afforded that luxury. You must perform the work NOW! In the middle of a parking lot. In the Rain. Maybe At night.

With nasty people commenting and in bad areas. Thus your "Now Fee" which is added (incorporated) into the final bill.

Then comes the actual Professional Locksmith work and charges.

Key Extraction.

Key from a Broken Key.

You will charge for the use of your; generator and battery, in order to run my Key Machine, to cut the Key.

You the Professional Locksmith know what to do, how to do it, and you have the materials, tools and knowledge to complete the job at hand.

First is the Service Call.

Now. Right Now ! So I charge for this "Right Now".

Parts and or Labor

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You must keep in mind to charge what would be needed if something goes wrong. What if you have to Sub Contract? What if you have to sacrifice a tool and it breaks?

Office Operations

Contracts and Clients

Change Order (Lock) - a deviation and or change in plans from the original design, thus usually constitutes contract changes and changes in the pricing structure.

Clients

Clients should never have to do work.

This starts with the release form.

A client should not have to fill out the form except for signing it. I never ever ask them to fill in the name or any other part of the form.

You should refrain from asking for drinks and or food or accepting them if offered.

Use your own tools never the clients.

You should try to have your own electricity except for the electricity used for your drill when installing deadbolts. You are getting paid and should be self sufficient.

Collections

I use three part forms. When the job is through, billing or paid, I give the top original sheet as their receipt.

After I get back to my office, I either file it under paid or if it is billing, I mail the second copy or copy the bill and send it out right away. Just a little push to pay. Even though I gave them a copy at the site, I mail them another one back at the office.

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I find that billing is very difficult. Some large companies take six to twelve months to pay. This is a real long, long time when you have put out eight hundred dollars in stock. A large company does not want to hear you moan if you want to do business.

I always keep the third copy for my own records. I will make copies, highlight in bright yellow the interest and total. Stamp " past due " several times as the bill lingers on.

When ever you mail out a bill or telephone your client, always make a note on the bill.

If you have spoken to someone on the phone acquire the date, person to whom you spoke and a brief note of what was discussed and method of payment.

When things get tough you can hire a collection company. They are not very reliable or honest.

Billing is tough. You must be solvent enough to carry the bill for at least a month or more. Then you have other bills and expenses. You could be sitting on thousands of dollars a month from a half dozen businesses.

People will let your locksmith bills go for months and not pay. When it comes to paying they will not pay the interest. The large companies that you purchase from charge you interest. You will pay it, but when those same companies let their bill with you go over thirty days, they will not pay you interest.

Pontiac road side, filenes, jordan marsh and others are all prime examples.

You will find companies that only pay you just before they hire you for the next job. You won't be paid for six months and then all of a sudden the check comes in.

All right !

And within two weeks they will call you again for more work. I run into this all the time.

Sooner or later they will never call you again and you will not have been paid.

Or six months later you will call about the bill and they might pull the following:

" I was not satisfied with the work routine."

Notice they never called and said anything previous to your call.

Sometimes they will say that they had tried to call you or that they had called and left messages, or the line had always been busy etc...

This is where office logging equipment is handy.

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I never offer personal or private billing at all. The private person pays cash or major credit card. We do not ever take checks, at all.

Now, after the bank data fraud, we highly advise not using master card, visa ,american express.

I will take a business check. Never a private personal check.

The only exception is in the part of the united states that I am located in now.

Now I will take a personal check without a question.

Contracts

Contracts come in all shapes and sizes. One that is over looked quite frequently is the check.

Adventure Bargain Outlet Framingham Massachusetts Case History:

5/29/95: Memorial Day / Holliday / Long Weekend received call from Gary Littlefield / I returned call within the hour. He was not in store manager donna took call / i did not say who i was she asked me if i was locksmith ? I told her yes. I was returning call and who we were. She said that she was in charge and gary told her to have us come out and billing had been arranged. I said i had not spoken with gary for over a year about billing and are you sure you have the right company ? She said yes . Are you sure you want me to come out ? Yes . I told her all the prices and she said it doesn't matter , come out. Upon arrival she introduced and we gave our card. She again said it would be billing. I went and did the safe , i told her about safe contacts / pir near fluorescence **Hysteresis** / and masked pir / while i was working on safe gary called and she said abc was there working on safe right now. She started to explain historesus , i asked if she wanted me to talk to gary ? She did not answer but ended conversation. She told me to key back door separate from front doors. We did. She left bill hear and there around store when beth gave it to her. He was to be back at store at 6:pm if we needed to speak to gary. Gary did not call saturday at 6pm nor did he call sunday at all. He did call at 9:am on memorial day monday morning. Saying i pulled a sleazy maneuver doing the work. I did not speak to him , but to an employee and there for had no right to do work. The other locksmith came at 7:30pm and i had sleepily done work. He wanted all doors keyed the same and i did not do it. He would not pay me the other locksmiths service call. If it was so important why did he not come back to store ? Why didn't he speak to me on phone ?(If he did have one) // comment / // it is like ordering a pizza, you call thirty five places and who ever gets there first , the rest are screwed. Then you bait and switch tactics . You didn't speak to me , i wanted this done different . I didn't hire you , i didn't call you etc Etc...

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If you read the story adventurers bargain outlet stores, gary was trying to find a way out of paying the bill in full.

All the excuses, and then came the check.

A check is a legally binding contract. It is signed by both parties.

It usually has a memo of what the check is for.

Signed by the person issuing the check.

Then it is endorsed by the party receiving it.

You must be careful when you endorse and cash a check. What ever is written on it is law. What ever is written on it is the contract.

When you sign you agree.

If you notice the bill issued to adventurers bargain outlet stores, the signature by the manager is for a different price and the check issued is for another price.

He is very slick and has done this before. You can tell by the way he tries to sneak the check with " paid in full." He wrote this in the notes at the top of the check.

If he were really slick he would not have paid the bill at all. It was never signed and technically not legal at all.

If I sign and cash this check, I am agreeing to this contract (check). And could collect no more.

I could hold the check, not cash it and I could got to court with an attorney, but most likely I would not win. The bill is not signed and agreed to.

I made the mistake of " trust." You can see where this will get you.

Don't trust anyone !

Always have the form signed.

I really do not know what I was thinking.

Luckily I did not supply any stock, only labor.

He has obviously done this before and has gotten away with it. He will undoubtedly do it again to someone else.

Pretty slick !

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Adventures Bargain Outlet
Framingham, MA 01701

INVOICE

NAME <u>Danna / Gary</u>		DATE <u>5-27-95</u>	
ADDRESS <u>A.</u>			
LOCATION <u>Adventures Bargain Outlet</u>		PHONE <u></u>	
TERMS <u></u>			

QTY.		PRICE	AMOUNT
3	ORIGINAL KEYS <i>in charge</i>		
3	DUPLICATE KEYS	2.00	6.00
	DEADBOLT SINGLE		
	DEADBOLT DOUBLE		
	KNOBSET		
3	REKEY	9.00	27.00
	HOLES BORED		
1	Safe combination change		45.00
1	Slip Pick Back Door		8.00
	LOCK OUT AUTO <input type="checkbox"/> HOME <input type="checkbox"/> OTHER <input type="checkbox"/>		
	SERVICE CALL AM <input type="checkbox"/> PM <input checked="" type="checkbox"/> 3		88.00
YEAR <u></u> MAKE <u></u> MODEL <u></u>			
PLATE # <u></u> OWNER <u></u>			
<small>AUTHORIZATION FOR SECURITY EMERGENCY SERVICES I hereby certify that I have the authority to order the lock, key or security work designated above. Further, I agree to absolve the Locksmith who bears this authorization from any and all claims arising from the performance of such work. Net 30 days 1.5%. Any and all Legal Fees to be paid by:</small>		TAX	35
		TOTAL	174.35
		Deposit	
SIGNATURE <u>Danna</u> DATE <u>5-27-95</u>		Balance Due	

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This is sleaze at it's best. The check he finally sent was not in full.

In the note section however he wrote paid in full.

A A BARGAIN STORE

EXPLANATION	AMOUNT
PAID IN FULL	

5821 5-20/110

PAY AMOUNT OF one hundred thirty nine ³⁵ DOLLARS

DATE	TO THE ORDER OF	DESCRIPTION	CHECK NUMBER	CHECK AMOUNT
5/31	NAME HAS BEEN CHANGED	565	5821	\$ 139. ³⁵

H. J. J. J. J.
AUTHORIZED SIGNATURE

⑈005821⑈ ⑆011000206⑆ 50 037529 3⑈

*** Notice ***

That the total on the bill and the total on the check are different. The top of check says "Paid In Full".

Should you cash this check, you will have been paid in full.

A check is a legally binding contract between two parties. What ever is written on the check and signed is the contract. The contract in this case involves a particular sum of money. When you sign, (endorse) the check you are agreeing to the contract. If the words "Paid In Full" are on the check and you sign it, you are paid in full.

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Contracts Again

Contracts, Contracts, Contracts. Let's see where to begin.
Anyone with money and or a sleazy snake of an attorney can beat any contract.

I believe a Contract is only as binding as those who wish to honor it.

Breaking away from contracts, it seems the most problems arise from what is "said" or "not said".

We have our telephone number and twenty five ways of contacting us.
Anyone may ask any questions at all. We answer the telephone twenty four hours a day. The people are advised during an ebay auction to ask anything they wish and all questions are answered.

For instance on Ebay our Shipping / Handling policies stated:
"after the auction closes please give us your zip Code and we will give you the exact Shipping / Handling rates.

The auction closes and the person sends their zip code by email. We weigh the parcel and quote our S&H price calculating the box, packing materials, and the persons time into the equation. We quote a price.

We then had people state:
"you said, exact shipping rates". I went to the UPS or USPS Web site and looked up the 12 pound parcel and they stated five dollars less than you".

We have our telephone number and twenty five ways of contacting us listed for the client.
Anyone may ask any questions at all. We answer the telephone twenty four hours a day. The people are advised during an ebay auction to ask anything they wish and all questions are answered. Why don't they ask before they purchase?
I print the weight directly into the advertisement. The person can clearly see the package weighs 12 pounds.

In other words the person is implying you said exact and now you must stay by that.
We stated exact meaning we will tally everything up and give you a rate which will not have any surprises or incurred costs as you go.

Liz was selling a leather collar on ebay.
All sales final etc...
The person

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The person wrote. "After receiving the collar, I found it did not fit. It is not the size I stated in my email.

Liz and I went back through the emails and did indeed find her email stating she needed a 17" collar. Of course after the auction had closed and the size is what ever the size is.

The average person tends to be sleazy. Attempting to hold you on every single word you utter. And if you say anything at all, which is penetrable they will attack.

Contract Change Order

This is when the original contract is changed or deveated in any way.

Old Client Case History:

I had a client we will call him "George". George owned a service station in Sherborn Massachusetts.

I had been going there since 1987 and before. I would fill up my Chevy Cube Truck every other day with fuel and had all my mechanic work performed at his station. Thousands and thousands of my hard earned dollars were spent at this service station.

I suggested an alarm system several times for his service station and he declined. One night he was robbed by one of his employees.

He called me immediately, his knowing that I offered true 24 hour Emergency Security Service and asked for an Alarm Installation estimate.

We made some conversation, it was very late and an appointment was set for the next day.

I gave him an estimate. He knew that my estimates were higher than most but that my security stock was top quality and my work was unsurpassed.

We performed the alarm install and all went without a hitch.

I was asked to service the physical locks, Re-key.

Over a period of time there was, "do you have extra Schlage keys we could have for cutting on our own key machine"? "Could you re-key the men's room"?

I would do so without a service call. One time he called and said "my wife went into the station and set off the alarm. I don't want to drive 20 miles back. What can we do"? I told my client that I could Upload/Download to the alarm panel and shut it off.

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I told him that I would wait until she left the station and then by watching the lights on my computer security screen I would arm the system. I did as I said and was on line with the panel for about thirty minutes.

I did not charge a dime. Several other times the alarm was set off by end user problems and once by a rat. I would go to the site and help the users. No charge.

He asked me if I would go to his house and look at a faulty fire detector (I did not install it).

I did and told him what his problem was. No charge. When he upgraded to a larger system, I had several problems with a relay and worked on it for hours and hours.

He converted his service station into a convenience store. He asked me to rewire, I did.

At a discount rate.

I told him he should think of Cameras. As I had been telling him for years. He asked about Cameras and I briefly told him. This went back and forth several times, but it was very vague questions and answers.

I gave him my CCTV catalogue and said "if you see anything let me know. I can do better on pricing". He told me that Bay Bank would put Cameras in because they were putting in an "ATM".

A month or so went by.

One morning I walked into his store and I almost fell over!

Cameras mounted in all four corners. Four Cameras! I asked "who installed the Cameras, Bay Bank"? No he said "Silent Partner".

"Why didn't you ask me to do it, I asked"?

"Your catalogue prices were too high, and they financed". George answered.

Now we all know that I got screwed.

I told him that I could do a lot better on prices local than my international mail order catalogue.

And this is the main reason for top of the line service hands on professional concise service.

You want the "big one" from a client when it arrives. I am still shocked. He told me what he paid and about the two year financing.

I investigated and called the manufacturer. I then found out from the manufacturer of the Cameras, that my being an installer of their Cameras gave me special discounts as well for financing clients. We priced up Georges Camera System plus interest.

I then priced out what I would have charged, with a 2 year plan with interest.

He got screwed.

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He approximately paid double for his system.

Instead of staying with my reliable quality and service, he obviously listened to a friend or competition who bad mouthed me.

I guarantee he will call for service. I guarantee from now on I will charge for every move I make.

Do not be shy and do not be nice. Charge what you do and for what you are worth.

Don't cut any deals. You are only cutting yourself out. I am now going to sell service agreements to all my clients. I am tired of midnight uploading and downloading. I am tired of the nice guy free service calls.

Croatan High School

Intelligent Security Solutions
P.O. Box 707
Havelock, NC 28532
Telephone 1-252-463-3455

Date: Thursday, September 26, 2002

Mat Bottoms Principal
Croatan High School
1 Cougar Lane
Newport, NC 28570
Office 252-393-7022
Fax 252-393-1223
Home 252-247-2312

Dear Mat Bottoms:

Enclosed please find our Company estimate for the Digital Recorder System you requested on Wednesday September 25, 2002 / 3:00PM.

The equipment and installation is the Best available and will provide outstanding service. The unit described meets all the requirements you have requested.

Enclosed please find our contract on the materials to be used.

Snap Shot of Equipment

Dedicated Micro™ DS2DX16C320 Digital Recorder, with 16 Color Camera Capability, Color Camera Multiplexer, Web Capable, with 320 Gigabyte memory. Sixteen color cameras for Fifteen Day recording real time.

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No rewind, instant recall, time and date stamped. Remote Viewing on Web anywhere, with pass word.

Ease of operation.

*Note / This particular piece of equipment is a; Top of the Line, Professional, High End Unit and is self contained. Thus an additional computer is not necessary.

If our **Proposal Number 092602CAM** is acceptable to you, please sign both contracts and **return one signed copy** to Intelligent Security Solutions with the required deposit.

We will begin the installation within ten to fourteen days of our receipt of said contract and deposit.

Please retain one contract for your own records.

This proposal is valid for fourteen days (14 days).

If you have any questions please feel free to call any time.

Thank you for this opportunity to serve you.

Thank you for your time.

Sincerely,

John Clymer II
President for Intelligent Security Solutions

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Intelligent Security Solutions
P.O. Box 707
Havelock, NC 28532
Phone Toll Free 1-888-543-6060
www.asalocksmith.com

Client Quote 1

Mat Bottoms Principal / Croatan High
School
1 Cougar Lane / Newport, NC 28570
Office 252-393-7022 / Fax 252-393-1223
Home 252-247-2312
Date: Thursday, September 26, 2002
This proposal is valid
for Fourteen days (14 days)
Proposal Number 092602CAM

Job description is as follows:

The business known as Croatan High School, Mat Bottoms Principal, 1 Cougar Lane, Newport, NC 28570 / Telephone, Office 252-393-7022, Fax 252-393-1223, Home 252-247-2312, has requested a quote on a Color Digital Recorder with Color Multiplex, Web Browser, plus Installation.

Intelligent Security Solutions does hereby make the following proposal:

Provide and Install:

<u>Item Description</u>	<u>Quantity</u>
New, Dedicated Micro Color Digital Recorder, / 16 Color Camera/Internet Browser/Color Multiplexer/320 Gigabytes DS2DX16C320.....	1

Additional Cable and Connectors as
needed.....

All Labor Necessary to:

- Relocate existing Control Center to office #106. Cables, Wiring, etc...
- Install New / Color Digital Recorder w/16 Color Camera Capability, Color Camera Multiplexer, Web Capable, with 320 G memory.
- Connect existing cameras to the DS2DX16C320.
- End user instruction on equipment use.
- *Note / Professional High End Unit is self contained, additional computer is not necessary.

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* All materials are guaranteed to be as specified.

This Security System, as in any Security System, electronic, or physical, is a deterrent.

This relieving the contractor, installer, technician, I.S.S., of any and all claims against them arising from the performance of said Security System and work.

Deposit..... \$8,000.00

And

Upon Completion of Installation. \$3,665.00

Total.....\$ 11,665.00

Acceptance of Proposal

Date

Signature of Contractor

Date

Signature of Authorized Person

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Intelligent Security Solutions
P.O. Box 707
Havelock, NC 28532
Telephone: 1-252-463-3455
1-252-247-2400
www.asalocksmith.com

John Lee / Carteret Hospital
Director of Safety and Security
Telephone: 1-252-808-6005
Fax: 1-252-808-6941
Pager: 1-252-247-8322

Date: Friday, July 26, 2002

Dear John Lee:

Enclosed please find our Company Estimate **Proposal 072602** for the Covert Camera System which you requested.

The equipment offered is the best available and will provide outstanding service.

Please sign one copy of this proposal and submit it to Intelligent Security Solutions with the appropriate deposit amount.
Please keep one copy of the proposal for your own record.

If you have any questions please feel free to call any time.

Thank you for this opportunity to serve you.
Thank you for your time.

Sincerely,

John Clymer II
President for Intelligent Security Solutions

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Intelligent Security Solutions
P.O. Box 707
Havelock, NC 28532
Phone Toll Free 1-888-543-6060
www.asalocksmith.com

<u>Client Quote 1 Proposal Number</u> 072602 John Lee Director of Safety and Security Telephone: 1-252-808-6005 Fax: 1-252-808-6941 Pager: 1-252-247-8322 Date: Friday, July 26, 2002

Job description is as follows.

The Director of Safety and Security, John Lee, Telephone: 1-252-808-6005, Fax: 1-252-808-6941, Pager: 1-252-247-8322, has requested a quote on the following equipment. ISS is not responsible for Camera System Installation.

Intelligent Security Solutions proposes the following:

<u>Item Description</u>	<u>Quantity</u>
Smoke Detector Camera with 90° Field of View.....	1
960 / 40 day Time Lapse Recorder, Date Time Stamp, Motion Trigger.....	1
Monitor B&W.....	100'
Coax Cable with Power Wires / Siamese, 100 feet for Camera, W/Connectors.....	12' (or longer)
Cable for Recorder to Monitor, W/Connectors	if needed)
	1
	2

End user instruction on equipment use.

Total.....\$995.00

<p>* All materials are guaranteed to be as specified. This Security System; as in any <u>Security System</u>, electronic, or physical, is a deterrent. This relieving the <u>contractor, installer, technician</u>, I.S.S. of any and all claims against them arising from the performance of said Security System and</p>
--

Deposit..... \$600.00

And

Balance Upon Delivery or Completion \$395.00



Acceptance of Proposal Friday, July 26, 2002
Date Signature of Contractor

Date Signature of Authorized Person

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A Warranty was requested for the unit as well

Intelligent Security Solutions
P.O. Box 707
Havelock, NC 28532
Telephone 1-252-463-3455
www.asalocksmith.com

Warranty Information for Proposal Number 072602

John Lee
Director of Safety and Security
Carteret General Hospital
Telephone: 1-252-808-6005
Fax: 1-252-808-6941
Pager: 1-252-247-8322
Date: Tuesday, July 30, 2002

Dear John Lee:

Enclosed is the warranty information for proposal number 072602.

One Smoke Detector Camera with 90° Field of View / Part # SD150P3..... 90 day exchange on equipment / three years replacement.
One 960 / 40 day Time Lapse Recorder, Date Time Stamp, Motion Trigger / Part # SAMSLV960N Two year warranty on the Recorder **except** the heads which have a one year warranty.
One Monitor 12" B&W / Part # VIE40VM1201BWB..... One year warranty
Coax Cable with Power Wires / Siamese, 100 feet for Camera, W/Connectors..... N/A
Cable for Recorder to Monitor, W/Connectors N/A
Transformer for Camera Power..... N/A
Time Lapse Tapes..... N/A

Thank you for this opportunity to serve you.
Thank you for your time.

Sincerely,

John Clymer II
President for Intelligent Security Solutions

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Well the smoke detector Camera order was wrong some how and John Lee stated he wanted an angle lens and not a straight lense. Of course the angle which he is requesting is three hundred dollars and not one hundred dollars.

Liz and I finagled and coerced our vendor into
"Cutting us Loose".

John Lee received a three hundred dollar camera for one hundred bucks.

And of course moaned and groaned.

This is a Classic CCTV Complaint

Five Months Later...

Thursday, November 14, 2002 / 12:00PM Noon

John Lee from the Morehead City North Carolina Carteret Hospital called. He stated to me he had attempted to connect the Smoke detector camera to the recorder and trigger it to begin but it did not work as I said it would.

The first thing I mentioned was if he was utilizing the correct trigger "Alarm 1" located on the rear of the Samsung 960?

John Lee stated he saw that, but I had told him there was an alarm trigger in the camera (referring to Pixel Activation). I was surprised I stated such a thing, but I was thinking he had a different unit than what I was picturing in my mind.

I asked what he was planning on doing. John Lee stated they had not used the equipment at all and that moral was down in the hospital and so they wanted it up and running.

I said all right let me call my technician in Main. I made a three way call and introduced Don Bennette to John Lee Over the telephone. I requested John to tell Don exactly what the problem was he was encountering. John Lee seemed to get angry saying "I have to tell him my problem"? "All right" he said disgruntled.

John explained the camera would not automatically trigger the unit to turn on".

Don began to speak of a JVC and I corrected him stating it was a Samsung.

It must be noted, Don and I were both operating from knowledge on something we had discussed and sold five months prior and we were referring to facts off of the top of our heads.

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Don also stated about the "Alarm One Trigger" located on the rear of the Samsung 960 recording unit.

He said the camera and or Samsung was not made for Pixel Triggering or Scenario Change Trigger.

He stated we needed a trigger such as a PIR or a door trigger in order to activate the trigger and roll the camera.

I stated I knew and understood and we were through conversing.

I spoke with John Lee and He stated for me to "get the triggering device".

* Please keep in mind this client has had this recorder for over five months and now on a Thursday wishes to get it running for this weekend. Frankly I personally do not believe he had never used this recorder up until now. And if he is in charge of security he is not doing a very good job by waiting until the last minute to try a piece of equipment out and then confront a problem which may arise.

In the Investigative detective world, he should already "Know Your Equipment".

I stated "I didn't realize he had needed a separate trigger on this particular unit". I was thinking of the multiplex unit the Croatan High School had requested two weeks ago.

I would check into the cost of a trigger.

John Lee stated "I guess we will have to experiment". I was quick to state "Oh no. We do not have to experiment. I know this equipment and have used this many times before.

I made some calls and had Liz on her telephone as well in some three way calls. We obtained the price on a Door transmitter, Receiver and a Plug in Transformer.

Liz called John Lee back and quoted \$140 to acquire the equipment and to install it. John lee requested for us to absorb half the cost.

He told Liz that "I (John) did not know my equipment".

He hung up nastily and stated he would call back. Liz and I pulled his files and contract and waited. And waited and we waited. He never called back.

TTTSSSSSSSSSSSSSSSSSSSS. Come on..... "I (John) did not know my equipment".

I make three way conference calls to "Exact Professionals" long distance to Main from North Carolina, to Louisiana from North Carolina on my cell telephone. I get answers when I need them and the person then snidely states he doesn't know what he's talking about. (meaning me).

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I explained to Liz about my stating "I didn't realize he needed a trigger on this particular unit" and he will hold that against me.

We agreed we would call John again on a three way and discuss the unit and capabilities.

Let's face it the guy didn't pay one thousand dollars for all of the equipment and they bitch and moan. Five months later.

Yeah. My milk was bad. Five months later.

Just now on Channel 7 at 5:30PM, the FBI stated they received a warning of a terrorist Threats against United States Hospitals.

OOOhhhhhhhh. That is why this man wants this thing running now.

Let's go back a second;

I asked what he was planning on doing. John Lee stated they had not used the equipment at all and that moral was down in the hospital and so they wanted it up and running. He should have said we received a terrorist Threat and are only now responding.

People are never honest or for the right. They are always trying to finagle something. I wish he had just stated we received a threat and need to get the unit going.

Better yet, I wish I had his job with pay and that unit would have been running correctly the day I purchased it.

December 6, 2002

The clown began to call and leave messages as to.

We are still waiting for our trigger let us know.

As if I am going to extend any service at this point.

I have been providing service for to long. Thus, Liz is our diplomatic relations department.

I forwarded the call to Liz. She is in the state of Utah.

Liz called long distance on her cell telephone to one of the jerks to talk with them. She said "he wanted to get into it with me and I told him my files are back in North Carolina. I will call you when I get back around the 18, December 2002". He hung up snydly.

I'll try and keep you informed.

Liz returned their call from Utah Long Distance.

They seemed to want to argue with her.

She stated she would call them upon her return to North Carolina.

Liz called and left several messages, non were returned.

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December 20, 2002 Lee called in the late afternoon and was crying they had a theft in the hospital and they needed the trigger and this and that and on and on.

Liz made some calls and acquired the same prices for the same items a third time. Lee again stated he would be calling back. He never did.

Today is Friday, December 27, 2002 and they have not called yet.

Let's look at the Hospital Security

First the loss Prevention or security department needs to decide they can not know and perform all of the security measures unless they perform each phase of security them self.

The security department needs to come to the conclusion they need professional consultation. To tell a security knowledgeable individual their needs and wants and to acquire correct answers.

They should have asked me for information and I would have guided them to a multiplexer.

I would have instructed them to check and use all of the equipment long before it is needed. A good spy or detective knows their equipment. Know what it can and can not do, etc...

I would want to know about my IC (Interchangeable Core) system, Safes, Fire, Control Panel, Electronic Security, Medical Storage, Freezer Alerts etc...

I would wish to know.

I was performing Loss Prevention Security for the Building 19 Chain Stores in New England. I arranged for Red Cross Classes, CPR etc...

I worked Under Cover.

I inspected: Fire Extinguishers, Fire Egress Fire Doors, Tractor Trailer Contents, Picked Up Shop Lifters, Checked employee Bags, Watched registers, Inspected around buildings and more, all on a daily basis. I do know security and what is expected.

The security at the Morehead Hospital is weak and sloppy.

It is my opinion and I am entitled.

I would begin as if I were constructing a Master Key System Tree©. With a trunk and branches.

I would get the people who are important together in order they might explain to me what security is needed now and what may be needed in the future. Who would use what security where and so fourth. I would proceed step by step, logistically. The big picture, now and into the future. Being a hospital with plenty of money, they should certainly be able to afford the best. Especially with Drugs and losers.

This is not the place to proceed with Security Design and or breakdown. It is introduced here to explain clients and behaviors.

Knowing Who to Call

I have found some people get angry when you begin to "Make Calls".

Case History

The American Storage facility owner of Havelock NC, USA stated this to me during a free ISS CCTV / Security consultation.

I stated to him, for further information I could make some calls and asked if he would like to retain my services. He stated "Well if all you are going to do is make some telephone calls, I will do that myself".

I have called people all over the world for advice. I do get answers.

Three years later The American Storage facility owner still does not have a Security System and or CCTV System.

Yeah, I was going to make some calls. It is all in knowing who to call for what. Remember this.

He obviously did not make the correct call or calls.

Never be afraid to know when to say to yourself, I can not do this with the knowledge and or tools and supplies I have at hand.

Is there someone I know to whom I can call and ask?

I am glad to say I personally have quite a list of people, with excellent and sound answers. But Do Not Call Ralph Fuller of Coastal Lock North Carolina USA.

Sub Contracting Work

Cut Throat "Coastal Lock" Havelock North Carolina USA

January 1, 2003

Liz and I were called by a John Craig 195 Hunter Brown Road, Cape Carteret NC telephone 1-252-393-7944.

The time was 3:00PM in the afternoon. The man called and stated his vehicle was locked tight and his wife had lost the keys new years eve that night.

It was a 1997 Ford Contour. White in color.

The vehicle was parked at the BT (Beach Tavern) Bar Atlantic Beach. It was obvious or presumed someone was drunk and had lost the keys.

Liz quoted the man a price of \$175 to get started and the price could go up. There was no guarantee of creating a key, but we would do the best we could. The man stated he would call back and hung up.

Shortly later the North Carolinian called back and stated he wished our services.

Liz stated our policy we needed a credit card number in order to guarantee we would be paid for our services. People taking off and or even our getting paid for the work rendered.

Liz stated there were several jobs needed in order to complete the task.

First a Service call was in order to service the vehicle.

Second we would have to open the vehicle in order to gain entry to the driver's compartment.

Third we could open the trunk and remove a lock in order to decode in the attempt of creating a base key.

And fourth then create the ignition key combined.

One key fits all locks around the vehicle. Different cuts from different locks are needed to create the key.

Fine he stated.

Liz and I looked up the key blank and found we did indeed have three in stock. Kenneth King (the grandfather) gave his credit card number to confirm the service call that we would be paid no matter what the out come. He agreed this to us. He agreed this to us.

Card Number 4334 7700 0550 1140 expiration 08/07

Sanya Cooper Craig.

I sensed trouble from the moment we arrived.

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When we arrived I noticed the vehicle was not parked in a designated parking space. It was parked in a striped no parking zone and sticking out into the parking lot.



Vehicle Parked in striped no parking zone.

Liz passed papers and reiterated there was no guarantee we could create a key.

I began my work.

I used an Under the Window Tool and opened the vehicle.

The man stated his wife had set out to get drunk and had given the keys to the bar tender to hold. I guess after she was drunk the keys were not to be found.

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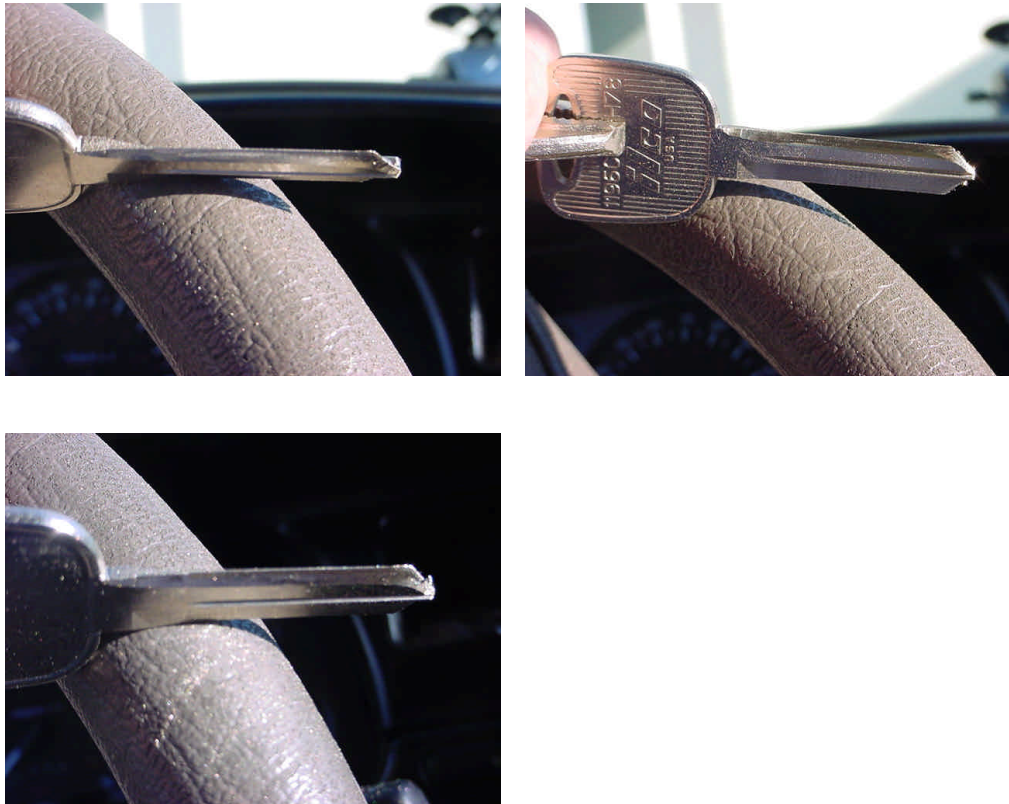
I asked "She came on purpose to get drunk? She was not the bar tender or worker here"? No he stated she set out to get drunk. The BT Tavern offers the "Hold the Key Service" to anyone who wishes to hand there keys over "Don't give these keys back to me".

I was wondering and thinking how strange to allow ones wife to go out drinking with the intent of getting drunk. I guess a life style is a life style.



I got into the vehicle and popped the trunk. I began to attempt to Impression the Ford Side Bar Wafer Lock from the ignition.

The man stated I was a "Yankee" and asked where I was from. He had a sour note about him, but I took it as anger of the lost keys.



After this method began to become unfruitful I removed the trunk lock.

A clip is removed from the trunk lock and the entire trunk lock is simply slid out. It only goes together and comes apart one way.

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As I was working tediously on the key the client John Craig went into the bar to keep warm.

The sun set.

After several hours inside the freezing black car with the wind blowing on the beach I was losing steam. I had several flashlights one of which the grandfather told me to use.

The car was cold, I couldn't start it without a key. Thus I pushed on. My hands were frosted. I could not get the last two cuts at the tip of the key.

John Craig and his grandfather (the girl's grandfather) returned. I stated I could not complete the key. The grandfather thought it was a money issue and offered more money to me. I explained it was not the money and that I simply at this stage could not finish the key.

It was dark and cold.

The grandfather was very nice and insisted he pay more money.

I stated I do not do paper work and that Liz was accounts payable and receivable.

Finally after some discussion of what could be done I stated we had called another locksmith Ralf Fuller from Coastal Lock to gain advice and help. I explained I would do what I could in order to get a key for the vehicle "If I could get a key made at all".

The grandfather and Liz finally agreed each did not want to take advantage of the other. The grandfather paid Liz two hundred and we all left it with the understanding however the situation worked we would work it out.

Liz and I discussed whether we should contract Coastal Lock.

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Liz asked me what was involved. I explained I needed a Pinning Kit, The HPC Code Card, hopefully we had the correct cutting wheel, a book with spec's would help so we would know where to drill and some key blanks.

Liz said she believed Ralph Fuller could be trusted to handle an ISS client.

I was very skeptical as to whether Ralph Fuller could be trusted to handle one of our clients or not. We finally decided to give Ralph one last try in order to test his intentions after all, all previous encounters had been distastfull experiences.

Liz and I called Ralf several times all to no avail.

Liz went to Coastal Lock shop the next day and talked with Donna Ralf Fullers wife. Liz had a dozen keys cut/copied from a broken key I had created which operated all the vehicle locks but the ignition. She paid for the keys.

Liz commented how Ralf was nasty and did not have a good attitude.

We purchased an ignition to the vehicle and after leaving the Coastal Lock Store I discovered the ignition was not Keyed Up.

I returned to Coastal Lock. I saw Ralf upon my drive up to his store. I said hello. And Ralf simply sneered.

I entered the store and asked Donna if she could key up the ignition and she said her son would. Her son poked and probed and played with the lock all to no avail. I commented on helping and he stated he did not do automobiles. The wife slid the kit to me and stated here. As I began to wafer the lock I noticed it had wings and was the wrong ignition any way.

Liz stopped at that point and asked me "Would it be easier to simply have Ralph complete the job and we just pay him"?

I was thinking of having Commonwealth Lock ship me a Pinning Kit and Ignition. The cost, the time etc...I stated "Let's have Ralph do the job".

Coastal Lock took the information and the dozen keys which Liz had already paid for.

We left.

Ralph then called and told Liz he did not Sub Contract work and he worked under his own name. We already had presumed that. He stated he would get paid from the client directly. Liz stated we had already acquired money and we would pay Ralph what ever he wanted to do the job. Coastal Lock Ralph Fuller insisted he be paid by the client instead of us. Liz called the grandfather and explained he would have to pay Ralph and we would be glad to split the difference of the Two Hundred dollars. We would return \$100 to the grandfather.

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He stated fine. He said they had actually called Coastal Lock First the other night but his price was well over two hundred dollars.

After the multi thousand dollar jobs I have performed, I personally though Ralph was being a pain in the ass not to take the money all ready in hand. One could see he was showing how superior he was and he doesn't need you. I am a professional Locksmith and you aren't.

I was to go to McDonalds Morehead City on Saturday, January 04, 2003 at 11:00am and refund \$100.

Saturday morning I left with one hundred dollars.

I, in my great wisdom forgot where I was to go and drove all the way to the Ford Contour at Atlantic Beach NC, USA. Ralph Fuller and His wife were there with all the vehicle doors and trunk open.

I approached Ralph cutting a key in the back of the van and said "hello".

The man leered at me with the foulest look I have ever encountered in my life. It was the nastiest look I have ever seen. Ever. Very Nasty.

I was a little stunned by the look, but not really. As I have stated in other episodes, Ralph has always had a sour tone.

His wife said hello but did not look at me.

I asked aloud "Have you seen the client"?. The wife answered politely "Yes". At the same time Ralph stated as a matter of factly in the sourest, distasteful tone one could muster, "He's come and gone". He looked at me with the most nasty look one could achieve without cracking there face into little shattering pieces.

I simply turned and got back into my van.

My telephone rang and it was Liz. She stated I was at the wrong McDonalds (next door to the Tavern). I then realized I was at the wrong McDonalds. She said the client was waiting.

I stated to Liz I hoped Ralph did not treat "My Client" in such a manner.

I then drove the six miles back to the McDonalds in Morehead City.

As I pulled in, John Craig the grandson was there alone as he jumped out of his vehicle with an extremely angry look on his face.

I got out of the vehicle and said hello. He looked away. He said do you have another receipt from the other night and I stated yes. He said he lost his and wished another. I was thinking to myself these people are not very responsible.

I signed a receipt and handed it to John. He snatched it from me.

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I was still being very polite and asked "We owe you a refund of \$100 Liz and your grandfather agreed to"?.

"No". He snapped "I want all of the money. \$200 bucks"

Before I could speak he asked "Do you have a license"? I stated yes and reached into my pocket for my wallet. "No. He snapped again a license". I stated "Oh by business license is right here in the vehicle" and I started to lean into the vehicle.

"No. He growled again. "A Locksmith License". I stated there is not licensing for locksmiths. He stated yes there is.

Ralf Fuller from Coastal Lock told me you were a liar, a cheat and a thief". He told me you were a crook and had a shoddy trunk operation.

Mr. Fuller told me you were a crook and should not be in the industry and that you and your wife were crooks and thieves and do not know what you are doing and I want my \$200 bucks back! NOW!" he screamed and stepped toward me in a threatening way. I stated I do not have that kind of money on me. I stated "let me call Liz and ask her what to do".

I was still trying to help and accommodate this man. Why would we have agreed to give back money or even meet with him if I had ill intentions.

"NO" He yelled and took another step toward me as if to intimidate me. This man is six foot three and two hundred fifty pounds. I am only 5' 6" tall and a very small framed man.

"I am the client and I will tell you what I want". I want my \$200 bucks". He stated "I am going to tell the sheriff, I am going to tell the Better Business Bureau, I am going to tell the FBI and he continued on and on. He was one nasty man.

I understood why the woman (his wife) was out drinking on a drunkard/toot, in order to escape the abuse of this man. He was a bit too much at this point. I didn't know whether to call the police or Liz or both.

I pressed #1 and send on my cellular telephone.

Liz answered. The man was yelling at me stating he wanted two hundred bucks right now.

Liz could hear the abuse and stated for everyone to calm down. Liz said for me to give the man the telephone and I told Liz he would either throw it or stomp on it. She then requested for the man to call her back.

He snapped "He wasn't calling any thief back and he wanted his money now".

I told him I only had one hundred dollars on me and that is all I had to give him. "He was now in my face leering down, puffing his chest and demanding I give him all my money. He had been told the other night that Liz performed all of the paper works and I performed the work, so he knew I only had the money I stated on me.

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I was about to call the police.

I attempted yet one more time to converse with the man.

I told him I was not angry and quite non plus about the situation and it was nothing that could not be rectified.

He would not listen. He was calling us liars and thieves.

There were people standing in the McDonalds parking lot listening to this man rant and rave as to my terrible thieving character.

I stated "I am standing in a McDonald's parking lot with only \$100 in my wallet and you are threatening me for more money than I have and which I have stated I have. In other words this is not a \$100 refund of the agreed upon funds, this is a robbery and I am about to call the police".

The big bad bully of a man stopped within inches of my face. He wanted to hurt me and he stopped coming forward. His fists were clenched and he was enraged.

He was practically leaning over me. He looked around and about himself as if looking for any witnesses of what he was about to do.

Again I asked do you want the \$100 dollars back or not"?

He screamed "No". He stormed off toward a pay phone stating I am calling the Sheriff.

I got back into my vehicle with Liz still on the other end saying for everyone to take it easy. As I drove past I waved a good bye.

This Ralph Fuller from Coastal Locks is exactly what gives the industry a bad name. This is exactly the type of Cut Throat attitude which is dragging the United States Down.

To place people's lives in jeopardy in this fashion is completely uncalled for.

It is quite obvious the other six bad mouthings I have records of were true. I have confronted Ralph on a previous occasion as to a client stating Ralph had said the same things. Ralph had previously denied the accusations. I believed him and gave him the benefit of the doubt.

Well I guess my discoveries were true.

We never got our paid for cut keys, we were not informed of the outcome from Ralph, nothing. A half assed job to say the least.

He made money on the dozen keys we had him cut and never saw them. Talk about crooks and incompetence.

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"My Client" had been misused and abused by Ralph Fullers / Coastal Locks Behavior.

Totally uncalled for.

No Testicular Fortitude either. The cowardice man did not even have the back bone or gumption to say "What" to me.

TTTTttttssssssssssssssssss.

It is so easy to bad mouth one behind there back and or bully with police. It takes Ovarian Fortitude or Testicular Fortitude to work together and in conjunction with others so as to reap fruitfull rewards.

Not back stabbing and bad mouthing.

If I am that much of a hack, why not take me by the hand and mentor me, as I am attempting to do here for you.

Why not show and teach? Why is it the New American way to back stab and cut throat to get the things you desire?

I simply should have ordered the Rekey Keying Kit and a new Un-Coded Ignition. Federal Express Overnight Delivery.

I had already created the door trunk key.

I could have simply drilled the side bar or broken the side bar and replaced the ignition keying it to the existing key.

The job would not have taken twenty minutes at that point.

I did not expect someone to bosh such an easy job. The job was actually very simple to complete. Ralph Fuller of Coastal Lock Blew the entire project out of proportion.

Thus I instruct those to be careful as to whom you contract work out to.

This is a perfect example as what are the consequences when one is presented with the problem of falling short of tools, supplies and knowledge.

Everyone will run short of one or more at some time, it is human nature. You simply can not do it all.

Faced with the proposition to purchase equipment with crash course knowledge or Sub Contract Out is the dilemma.

I have Sub Contracted many, many jobs and have never encountered the person cut throating like this. This instance was bad.

A competent Sub-Contractor will bill you direct. You pay the Sub yourself. You charge the client with your fees added into the bill.

Usually the fee offered to you is at a discount as a industry courtesy.

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You then bill the client at your mark up and you make some money for supplying the client and work to the sub. Telephone lines, calls, calling cards, slips the works. You know who to call.

This is how the program is supposed to work.

In this case Ralph wanted to be "Independent" from me in order to bad mouth me. Thus his insisting on Performing the work under his name and the client pays him. Separation.

However because Ralf Fuller from Coastal Lock acquired the client through me it is therefore my subcontracting regardless as to who paid the buffoon.

I have had many Safes and or Deposit Boxes serviced through other Security Providers and they always worked under "My Company Name". Electricians, Locksmiths, Plumbers, Mechanics, Welders, Architects etc...

Hey, it gave me great writing fodder.

Billing

Once you have established a billing system, you can look forward to checks coming in.

On a day in the future when it is slow and there is no work coming in. You open your mail and there is a three hundred dollar check, and a two hundred dollar check.

It's great. The only draw back is being solvent enough to wait thirty, sixty, ninety days to get paid.

If you get paid at all. Remember most of the big boys do not pay.

Every job you go to, you will find it is very important at least to the client.

**Failure to plan on your part ,
Does not constitute an emergency on my part**

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I usually try to limit billing only to businesses, and then I stay right on top of it.

If you have a computer, a data base for storing client information in the application "windows" is great.

A calendar as well as dates pop up, automatic phone dialer, histories, letter writing and more.

If you are consistent and accurate with note taking and logging of conversations with clients, this can give you a lot of leverage when you are trying to collect on bills. You can eliminate a lot of excuses from their behalf.

Then there are those who only pay the over due, out of date bill, so that they can hire you to do more work. They will not pay you for six months and then, wham, their long over due bill is paid in full. Be careful! They will hire you in the near future to do more work and again put it on a six month billing. Only to start all over again.

Sooner or later you will loose. There will be a time when they never pay you or call you again.

Those companies that call you (and you will know who they are) when their normal lock installer, locksmith, carpenter Is not available... charge them.

The only time they will call you is for rough jobs their regular person cannot do or the locksmith is unavailable. You will find that you will be doing a lot of correcting of other people's work.

They always seem to want to bill it. They are not even a regular client of yours. Say no.

They always want to bill it after hours. Usually at night or on the weekend or holliday.

Now if you were to start doing most of the lock installs for them on a daily or weekly bases like the other guy then you might talk turkey.

A regular client calls you at least once a month. Once a year or once every three years is not a good client. They are okay.

I don't forget them. But they do not get that "I am a regular client" type discount. Clients will always say "I call you all the time." Or "we have used you before."

I try to remember everyone. The good and the bad.

You will too.

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Billing Suggestions

If one is to grant billing I would suggest using an additional "financial agreement" form. This form states that there is a 10% finance carrying charge on all bills per month and it is compounded.

You are not a financial lending institution and are not licensed to do so. You would rather have cash or check but you will grant billing. With a fee of course. The bank would charge. Every one else charges interest. And most likely the very businesses that want you to bill it for them would certainly not bill for you. You would need to fill out a credit application and wait a week. But now the same business wants instant credit. Now. Right now. Their word is good.

If one is to grant billing one should ask "where is the home office". Any town or state other than the town that you are located in should pop up red flags. This billing should be avoided at all costs.

If you have a "skip" it is very, very hard to call and chase if not impossible. Even in your own town there is too much bureaucratic red tape. It is simply not worth it.

I have asked for the manager to write a check, pay cash and or put it on a master card. They will say I can't do that. I question to myself "why not"? Red flags should pop up. If the manager can not get reimbursed what makes me think that I will be reimbursed? I think it is quite logical for the manager to show their competence and reliability to "cover the cost" of the business for which they work.

Not one manager has ever paid. Not one.

It sure makes me worry.

Remember that you most likely have never performed work for this company before. Red flags.

Who does their regular work? Why not call them? They are not available, right now.

My attitude is; I have been in the town of madisonville tn for five years and when a company calls me now to perform work, I presume that there must be another locksmith somewhere involved.

Any one who uses a locksmith regularly should have either used my service by now or should have called us and arranged service with us.

Red flags. Red flags.

Oh by the way, you can be ripped off any time but most of the scoundrels seem to come out at night.

**In God we trust,
All others pay cash**

Hiring Help Down South USA

Tuesday, March 25, 2003

Our USA economy is poor and we just began a war with Iraq.

People need jobs, so Liz and I thought we would hire a couple of people here in Havelock NC USA.

Most of the appointments made with southern individuals were never kept and those who did fill out an application and whom we hired never showed for work.

One woman name Margerette, I wished to hire. Liz called her one evening to tell her we wished to hire her and the woman stated in a nasty tone she would call us back in ten minutes. Well the southern woman called us back two weeks later and was angry with liz when Liz stated we had already hired someone.

The Southern woman who was military with high clearance never showed up to work nor called.

Another southern woman never showed for her interview and yet called three weeks later and got mad at Liz when Liz stated she was not interested in her any more.

Writing Letters

The basic business letter

To Whom you should send the letter

Single person

If it is a board you would send a letter to each Board member.
Call the Board or committee and acquire a list of names.
And remember finesse and finagle, smile and be friendly.
A smile can be heard over the telephone.
Try it. Smile and say hello. You can hear the smile.
Now scowel and say hello. It sounds rough and raw.
Pretext would be a good word hear.

One would wish to acquire the names, addresses, telephone, email
etc... all of the information necessary in order to contact each
individual. The more info acquired the better.

If you were to send one letter to say the president of the board or
any single individual, if it is the wrong individual your letter may
simply be crumbled and tossed into the trash.

If you send the letter to each individual on the board and to their
individual addresses, you are more likely to succeed in bringing the
issue to light.

Appearances and conducting ones self

Handling Disgruntled Clients with Diplomacy

Claims

If the clients blame you or you know that you have damaged something, be honest and tell the client and or discuss it. Do not argue. Try to solve the problem without any insurance claims.
Read sharks garage door.

Collection Companies

Collection companies are not worth a damn unless you are a million air backed by money. I have tried them all. I even provided court papers saying that the parties owed. And still not a dime.

But believe me when a multi million dollar company uses a credit collection service they are right on your butt.

I have used the collection companies from vermont to georgia all to no avail. All worthless. Do not waist your money.

Some have tickets you purchase and others you must pay a percentage etc...

I tried to make a deal with one collection company in vermont united states of america.

I requested that I not pay them any fee up front and that I would give them half of any moneys collected. They would not do it. They wanted me to pay them thousands up front. A registration fee.

They knew that they would accomplish nothing and want to be paid for nothing. I thought that my offer would show all of our good intentions. No collections no pay. Needless to say they did not like that.

They wanted money. Sort of like the court system and or sheriff.

Another company took my up front fee and I never heard from them again. Who would I tell? A ridenor? Crooked. They are all crooked.

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Back Orders

This is a type of order that is taken by the distributor knowing that the merchandise is not in stock and promising prompt delivery. Usually a back order never arrives and is forgotten.

Back orders have been known to arrive over ten months from the date ordered.

Long after the job is completed and the parts no longer needed.

Not knowing what is in the package upon its arrival, it is paid for. What a surprise to have when the box is opened. You are out the two hundred dollars for the stock and it is usually the wrong stock at that.

You can return it.

Package it, insure it, the cost of shipping it, plus your time .then there is the endless wait for your credit.

Or you can keep the merchandise and sit on the late back order until the next time that particular part is needed. It could be a day, month or even years.

Or yet maybe this part is never needed again.

I usually keep the junk the distributor sends.

It is less expensive in the long run this way.

The distributors rely on this behavior and bank on it.

With your money, they sleep extremely well at night.

Oh, by the way the distributors are usually members of the unscrupulous operating locksmith association in america.

If you get a credit for an order / back order, you may forget that you even have it and never order anything. This is what the distributor wants. Your money. A quick \$100 here, a quick \$60.00 there. Receiving money for stock never expended. Pretty good.

If you don't tell the distributor about your credit the distributor will never tell you. The distributor wins, you loose.

I have back orders & credits all over the country. Good for them, bad for me.

I am still charged by the internal revenue service though.

Nickled and dimed to death. Don't let it happen to you.

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I was ordering safe parts from a distributor in the north east.
The dial and spindle were in stock but then he told me that he would have to back order the box itself.

I explained to him what back order meant. He swore up and down that this was not so. This distributorship was different.
He then made me a deal. He would send me the dial without charge.
After the box came in and when he sends me the part he will charge for the entire order. He was loud with an angry tone.

That was over fifteen years ago. I was never charged. I got the dial for free and never received the back order. I never heard from him again.
You will see for yourself.

When you say "Back Order" you have to laugh and then cry.



Back Order

Be Weary Of the Back Order.

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Insurance

Insurance is for dropping screw driver and cracking tile it is noy good for hole boreing and or chiseling a door.

Tennessee Insurance Service Group Copped Out after seven years of planning.

Bonds are Bogus

Bonding is very important.

What this tells the client is that you are trustworthy and have a certain amount of money that is being held in order to cover any theft or loss .

People love to see on your calling card or in your advertisement that you are bonded and insured. This means a lot to the client. It usually is an advantage to an apprentice to say that they are bonded. It shows that they took the extra step and that the person is not just an educated thief, but a person who is trying to follow the guide lines of being a locksmith.

For bonding in the United States of America, please contact us. We have a "legal locksmith bond" which was designed specifically for your use. At Intelligent Security Solutions. No Longer available. Sorry.

Bonded, Licensed and Insured

The installer should be Bonded and they should be Fully Insured. They should possibly posses their own Technicians License. Some states have two or more licenses for low voltage.

- A Contractors license to sign contracts. "Fees"\$\$\$.
- A Technicians license to install the electronic Security System.

These are two different licenses. "Fees"\$\$\$.

There are also town and county business License fees as well as insurances to acquire. "Fees"\$\$\$.

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As for the installer and their insurance policy

Purchasing insurance for an installer will be time consuming.
The policy should be scrutinized.
The insurance offered and covered most often is not the correct coverage.

Most of the insurance coverage is for when one drops a screw driver on a tile floor and cracks a tile.

The insurance offered does not cover boring a hole incorrectly or ruining a custom made hand chiseled door never mind shorting out a Security Panel and burning a building down.

There are different coverage's offered for Security/Life/Safety and Low Voltage.

I tried for years and with hundreds of insurance companies to acquire the "Correct Insurance." It almost can not be done.

One insurance company offered the correct Insurance coverage at a premium of over \$3,000.00 (three thousand dollars) a year.

Or.

One could acquire the same coverage by joining the National Fire and Burglar Association for \$1,200.00 a year and the insurance coverage would only be \$1,250.00 per year.

What a scam.

Make sure the coverage is exactly what you require.

The Home Owner Inquiring About the Installers Insurance

The home owner should ask to see an insurance policy from the installer and or acquire a copy of the policy.

They may want to actually call the carrier and acquire additional information.

Ask to see the actual Bond and policy. If a Bond or a copy is produced I would be skeptical.

Just because one has a badge which says bonded, does not necessarily mean they are. Most likely the person is not bonded.

Remember, I exposed the Bogus Bond© offered through the Locksmith Association and Locksmith Magazine.

Thus my attempt to create the "Legal Locksmith Bond"© with the Insurance Service Group® of Tennessee. After Seven years of negotiations and numerous calls, letters and meetings, the Insurance Service Group® of Tennessee fell through and finally said a "Legal Locksmith Bond"© for a \$10,000 surety could not be done.

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A Bond of this type was almost impossible to create.

The Insurance Service Group determined the Locksmith Ledger Magazine was not licensed as an insurance carrier to sell the Bond.

Further, there was no bond in existence which would cover all of the United States.

Any Bond is actually only good in the state it is written in and "filed for" in. There is no bond in existence which is good in every state. Each state must carry its' own bond.

It is similar to insurance. Each Bond policy is only good in the state it is prescribed and written to.

Each state must have at least one insurance company file for its' own individual states bond. The cost of each state filing for a bond was cost prohibitive for the insurance carriers.

Just to file in the state to "Create" a bond was not advantageous or lucrative for the insurance carriers to carry considering the few bonds to be sold in that particular state. The bond clearly written for a "Locksmith".

Then there is the cost of the actual bond when purchased by the "Locksmith".

The cost of the "Bond", Insurance, Telephone Lines, advertising etc... would be cost prohibitive to the "Locksmith".

This is why the "Bond" sold by the Locksmith Magazine and the Locksmith Association to all of its' members is bunk. One Bond can not be covered in every state.

Further if one thinks about it, they are supposedly purchasing a "Bond" through a magazine.

Would you purchase your other insurance through a magazine?
The answer should be no and one must ask themselves, Why not?

If one reads the bond which I have acquired through the Locksmith Ledger Magazine you will see it covers nothing.

I have been mentioning a "Locksmith Bond" because a "Locksmith Bond" would be more obtainable than a "Security System Installer Bond" and a "Locksmith Bond" can not be had.

Remember as a home owner;
Simply because an Identification Badge says Bonded does not necessarily mean so.

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Mobile Business Operations

My business is completely mobile. I have tried several store locations and none were very successful. Although there are many, many successful security shops.

However, being mobile was a great success.

Others in the area have closed their shop doors and followed in my foot steps.

Mobile, consists of different styles and methods. They are as different as the individuals themselves.

What works best for the individual is best for them.

I suggest a van or box truck. A van is smaller and more maneuverable. It consumes less gas and is less expensive to repair. I would even consider a small vanagon type vehicle. The size of the vehicle depends on your work load and tool availability.

Electricity to cut keys is important. If you don't have it and have to plug in to your clients " juice, " remember you can't charge a self contained price. The higher dollar.

A ready line generator or an invertor will work fine.

The generator runs on twelve volt dc and converts it to 120 volt ac. The generator running is noisy, but an invertor is silent. I use a generator and it is my preference. I have a solenoid connected to my vans charging unit.

As my truck runs it charges a deep cell marine battery I have mounted in the back of the truck.

If my truck battery goes dead I can jump myself from my generator battery. This is because it is isolated by the solenoid.

I do not have to, but usually start my truck when I turn it on.

I start my truck with a remote auto start. This I carry in my pocket. When I need " juice " I start the truck and cut a key.

My key machines consist of a hpc icm1200 code machine, a full automatic capable of manual cutting and a tubular key machine.

I also have a curtis clipper I use for automobiles. I use it primarily by sight cutting. Sometimes they door key is visible.

Looking at a door key hanging from a key ring in a locked car.

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I will eye ball the cuts and clip out a key. I am successful about 80% of my attempts. I complete this task in about thirty minutes time.

I keep my truck spotless and am proud of it. When ever I open a door to get in and there is a client standing near. Their comment is always, "your truck is so neat for a service vehicle."

It has to be. When you are on the road at three in the morning and in a bad neighborhood, that is not the time to go scrounging and searching for your shim stock, tools or whatever you might be needing.

I have a box for auto opening tools. A machinist box for picks, shim stock, small screw drivers, decoders etc...

Being mobile without a store and walk in business means I push twenty four hours. Three hundred and sixty five days a year.

This is what I want. I live a good life. I work with low voltage, alarm panels, electric strikes, key pad entry and more.

There are many good books on security.

If you were to go out and start a mobile locksmith business tomorrow the truck might include a code machine, full automatic key machine, blank stock, tools, pick set, decoders, lab pinning kit, auto opening tools, heavy duty drill with a side handle for boring holes in doors, auto tools for gm column break downs, calling cards and stock. Other miscellaneous items, give or take.

You can obviously start up for less. One tool at a time.

You can do foreign or domestic auto, interchangeable core..... The opportunities are endless.

I was told that I was a lowly locksmith. That I had an immigrants job.

I worked hard for what ever they want to call it. Practicing until three in the morning, schools and classes when ever I could. Inventing security items and pushing myself further.

I do not drink or drug and pride myself on this.

I am a true twenty four hours a day service.

The other " locksmith's' in the area boast of it, but I do it !

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I secure premises at wife beatings, lockouts, rape, abductions and a variety of other endless circumstances. I go where the others won't and I can do what they can't do.

All of that I am very proud of.

You can do it too !

Have dignity and pride in what you do.

I have learned that the client is not always right. If the client has a bad attitude, are threatening, or just does not pay the bill, they never call me again. That's good. Always go into a job site with a positive, vivacious attitude.

If they do call it's too bad for them as my services can be very costly.

When I have been verbally abused or a poor attitude is present, the next time I will charge heavily for my services.

They can grizzle all they want. They either pay me for the abuse I am to receive or I do not perform the work at all.

They should have been nice. Life is too short and I don't need it. Neither do you. Do not put up with it.

Try to be pleasant under all circumstances, your safety is involved. I have been threatened, assaulted and a lot more. " yes" them, Give them the keys, do not get shot over it. It is not worth it. They say pay back is sweet.

It is.

Remember they all will call you back.

Trust me they will.

You will deal with a lot of people and you will not be able to remember them all. Some good, some bad.

I strongly suggest a good data base for your computer. If you do not have a computer, get one. There are used computers on the market. Be careful what you purchase.

Keep all your contacts, companies, and clients on a data base. You may include your own personal contacts.

Spend time every night and type notes on what was done and said. How much was paid and how you were treated.

Whether the client paid or not. How much etc...

It is valuable information. When someone calls, simply punch in the first three letters of their name and presto, their name and file appear in front of you.

Time the call. You will need a modem in order to do this.

Their they are; a great client, maybe a little note on your last conversation. Maybe about their mother being sick...

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How is your mother? Any better? They are shocked that you remembered.

This business method works great. You remembered them. They appreciate this.

Maybe your files say that the person or company is a thief and not to do work for them. This will save you headaches in the long run by not getting involved. Don't forget to write in that you received another call. The time date and content of conversation. You are now creating a history for them.

You can then tell the client (example) nynex telephone company that you spoke to them thirty five times and two calls were for forty five minutes each and you were put on hold for a total of 29 minutes. It's very impressive.

They hate it ! I love it and you will too. Try it.
Good client, bad client, you have the answers and information.

I use a program called act for windows. It is great !

Advertiseing

Marketing

In October 0f 2002 Liz and I went to the New Bern Mum Festival in New Bern North Carolina. There were many street vendors who had tents and tables set up in order to sell there wears.

Liz and I came across one young man about twenty five who had a tent set up advertising his business Callahan Marketing.

We conversed and I spent quite a bit of time at the youngsters booth.

He was there with a girl friend and it appeared several other friends of his were there as well.

We made arrangements to meet over lunch and discuss ASA marketing strategies.

It was a struggle but we all managed to meet on the far side of New Bern on Rt 17 for lunch at the Golden Coral.

Joey Jones from Callahan Marketing showed up with a "Friend" again. The young man appeared and appears to very insecure.

Liz and I made the mistake of **giving** the man one complete Basic Lock Foundation Set #5 with the understanding the unit was to be returned.

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Joey Jones stated he would investigate marketing strategies and get back to us.

Shortly after the meeting Liz went to Utah USA in November to see her sister. Joey Jones called and stated his grandmother had died and so on and so on...

Joey caught me off guard and stated he would leave my materials at a "Fast Food Chicken Place" on Rt 17 in New Bern. I stated yes I would pick it up there. He stated how he had a list of marketing places and he would tell us where and with whom.

After I called Liz in Utah I realized, I did not want to go see the manager at a chicken food restaurnt in order to get my Basic Lock #5 back. Liz called and straightened it out with Joey, that he was to regain possession of the Basic Lock #5 and Liz would make arrangements with Joey Jones upon her return to town.

We have called and emailed all to no avail.

The man will send a hollow email and state he will be contacting us, yet he never does.

Monday, March 17, 2003

We still have yet to hear from Joey Jones from Callahan Marketing.

In the mean time we met another man who called us over the telephone. Thomas Lynch and Jake Jasebuski. They called one evening and stated how they had found us on Ebay and they were very interested in our product. Tom stated how he was going to leave for NY in the morning and asked if we could drive the three hourse to Raleigh in order to meet and view our product.

Liz and I drove the next morning to arrive at our 10am meeting on time.

Needless to say Tom and Jake werenever, if rarely heard from again.

Tom was going to do this, and connect us with so on and so forth.

Etc, etc, etc...

He gave Liz the Name of a man with a Code Cutting Key Machine.

Not telephone number, address, email, nothing...

And thus the saga of Marketing continues.

Monday, March 17, 2003

We have been running news ads asking for help. The troops are over in Quate and people need work and jobs. We have hire about three people in the last five weeks and none have shown up for work. And about five out of ten people show up for interviews.

Telephone Directories

Business / Calling Cards

Calling cards are very important. You should always have them handy.

A top of the line salesperson, traveling the country teaching sales techniques, told me that a good business person should be able to produce a business card in the shower. I always wondered where you would keep them in order to produce one in the shower ?

Beside bonding and insurance this is one of the first items you should procure when starting a business.

You must put some thought into the name and the card should be neat with a sharp layout.

Leave the cards when you go out to dinner, go shopping or doing anything. I place them behind counters and leave them on kitchen tables, cash registers and shelves.

I leave them everywhere.

I carry my cards in a leather card pouch which I always carry in my back pocket of my pants.

The calling card seems to have more of a persuasive tone that you are who you say you are.

Some distributors, manufacturers and some teaching facilities will request your card and possibly a letter with your company letter head before doing business with you.

The cards may be any color you want.

My card for years was yellow. Not bright or lemon, more like a child crossing sign yellow.

This was to match the yellow pages and so that my card would stand out when tossed on a desk with all the others.

If you are into psychology the thought of colors should be investigated.

Blue is cold, red is hot etc

As in any industry or field of endeavor you will find those people who are Cheap.

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For example:

You are out somewhere and hand someone your Calling Card. They then say (Cheap talk) that they are interested in your services. You inquire if they have a Calling Card with their business name and number? The person then says "No". They then scribble their name and number onto the calling Card that you just handed them and say to you "Give me a call... next week. Or when you are ready".

This is a real turn off for me.

The person is too stingy (Cheap) to even have their own cards made. They scribble on your card

(which cost you time and money to print) their name and number, when a piece of paper would have done. They hand back your Calling card to you, not that the Calling Card looks anything like the other one thousand Calling cards you had made. It will never get lost with the rest.

And you are supposed to call them when you are ready to work. Similar to an ambulance chaser.

You are ready. Right Now! That is why you gave them your card.

Usually this whole sinerio takes place around other people. It does so, in order to make the person look as though they are a big shot. I find this type of person is usually drinking and this may take place around a bar or similar atmosphere where there are people gathered around.

And to top it off when you do call them (if you do) they will tell you that they do not need you right now and they TELL you to call them back in several weeks. They no longer have an audience.

Calling cards distribute your name and are very important.

**A good business person should be able to
produce a business card in the shower.**

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Security Stickers Pros & Cons

Or A Magris© Locksmith

Stickers are a form of advertising which the Locksmith, Alarm Installer utilize. The sticker is designed and a printer is chosen.

A "Set Up Fee" is applied and a minimum quantity of stickers are printed. Usually 500 to a thousand minimum. Stickers may come on a roll or sheet. Some stickers are aluminum, some stickers are paper, some water proof and some are tamper resistant.

The stickers I once used were a rubbery waterproof removable sticker.

If one wished my sticker not be present, simply peel it off.

Some stickers stick on a window from the inside out and some stickers are applied to the outside of the door and window.

The sticker may be applied to the face of a safe, or store front door, house, window etc...

The sticker may look and have it's face incorporated into a "Yard Sign" as well.

ADT Security Systems has their name advertised on "Yard Signs" as well as Stickers.

I have encountered the following problem with stickers.

Case History:

A local locksmith from Natick Massachusetts USA called me saying that one of "his" clients had my Sticker on his Natick West Central Street Zodiac Restaurant door. I informed the Locksmith that I had not placed the sticker on the door. He yelled and complained to me like a child.

He said that he found a roll of my stickers on the ground beside the door. I informed him that my stickers were in sheets not in a roll.

He then said that he found a sheet of them. I then told him that the stickers were actually in a roll and not a sheet. He then said that is what he found a roll. He kept changing his story to fit.

Neither of which were true. I carried individual stickers in my calling card pouch.

The whole thing sounded contentious to me. I was thinking as an adult just take the stupid sticker off the Zodiac Restaurant door.

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When I suggested to "just take the Security sticker off the door and be done with it" the Natick Massachusetts locksmith only complained that he would not remove it and he insisted I go down immediately and remove the sticker.

He then told me how he was a Karate "Expert" and that he was going to "Kick My Butt" etc. All of it simply childish nonsense.

He was really very threatening. His last words were "So, you want to play hard ball do you"?

After I explained to him not to get so upset over something so trivial as a Sticker, he was simply out of control angry. I listened to all he had to say and when he was through ranting I hung up.

It is not a big deal even if my sticker was on a door. I believe he was in one of his drunken stupors.

Can you imagine the Natick Massachusetts Police then called me about the sticker. The police called me about a Sticker.

The Natick Massachusetts USA Police then called and accused me of putting my sticker on the door and damaging private property.
(date and record on file).

I informed the Natick Massachusetts Police that I did not put my sticker on the door. I informed the Police that anyone could have placed the sticker there. The Natick Massachusetts Police then asked "how did they get your sticker"? I was thinking what a stupid question and he calls himself a cop.

Anyone could have taken it off of any several thousand doors, windows, Alarm Panels, phone booths etc. In the area. Any locksmith, Police, kid, grudge type person etc.. Wife Beating husband, dirty cop...

I was thinking you are calling harassing me. See?
What a jerk. Really. How did they get my sticker?
This guy can not even get through the thought process of a Sticker,
I can not even imagine a missing child report.

The Natick Magris Locksmith himself could have placed it there simply to cause trouble. I don't know. It is a simple Sticker.
This is not an Enron Scandal or a Crashing World Trade Tower.

This was about a Sticker.
See my eposode "The Stolen Rifle". The Natick Police said "it was done to bring attention and publicity".

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The Natick Police then threatened me. He said that if I did not remove the sticker, I would be charged with trespassing and damage to private property. I then told the Natick Massachusetts Police to charge me.

I have all of this on tape by the way. My telephone lines at the time were all recorded. "ABC Line is Recorded" I would answer.

As I hung up the telephone I realized that the Natick Police would charge me.

If the Natick Massachusetts Police were harassing me about a Sticker on someones door the Natick Massachusetts Police would surely charge me with; damage, rape, robbery, vandalism, fraud, larceny and more.

Anything to burn hard earned money and keep an individual down with trash and dirty politics. Especially a Clymer.

I knew that they would use a Lee®, Ridenor® or even a Hensley®.

I personally rushed to the site and removed the sticker from the door.

Obviously either the Natick Locksmith placed the sticker on the door, the Natick Massachusetts Police did or another locksmith trying to cause trouble placed it on the door.

The perpetrator obviously knew all of these morons would jump over a Sticker and it actually worked.

I did not litter after peeling the rubber removable sticker. I put the trash in my pocket and headed home.

When I got home there were calls from both the Natick Locksmith and the Natick Massachusetts Police.

It was a very, very long day.

Now what?

I called back the parties and told each group that I had been to the site and removed the sticker as they had requested and I must get back to work.

Oh my word.

Each then chastised me on, why hadn't I notified the restaurant owner that I was going onto the premise?

I should have called the Natick Police. I should have called the Natick Locksmith.

I had trespassed and on and on.

Again, It was a very long day.

I could not believe all of the harassment. Who would you tell?

Anyway thus my skepticism on Stickers.

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This was the same locksmith who purchased tools, stock and equipment from me previously and never paid.

He eventually kept finding reasons to argue with me about, and got out of paying his two thousand dollar bill. I was supposedly "Bad Mouthing" his Mistress around town and other such talk.

Sounds like a type of Magris© to me.

I found there were locksmiths in the area who would actually go to every telephone booth there was and place a giant one page sticker directly over all of the other locksmiths advertisements in the book. Obviously this is theft.

Especially after everyone knows what I as well as others go through in order to receive yellow Page Advertising.

Theft of the hard earned time and money of the advertiser.

Theft of convenience from the client having free choice as of who they may hire.

Anyone needing emergency locksmith assistance would be confronted with the one giant advertisement. All of the others hidden beneath.

Stickers are good, sometimes.

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Certified Mail & Packages

I personally like to send mail or packages this way. Nine out of ten times you can count on it being delivered properly. With certified mail, you may pay more, but it gets the material to the destination. The mail may also be tracked this way. Should it be lost, the package can be easily tracked using the tracking numbers that were assigned to the package when you originally sent it certified.

However, one never knows if the parcel arrived at its destination unless there is a follow up call or letter to get the investigation going.

To take this one step further you may purchase certified return receipt requested. This means that the individual item being sent may only be received and signed for by that person and that person only. It is against the law for someone to sign for mail that is not theirs.

It will only go to them. They must sign for it in order to accept the package or mail.

The signed receipt (tag) is then returned to you for your records. Upon the tag being returned to you signed, there is some belief that the parcel might have reached its destination.

Tampered with? We do not know.

The receiving party has the envelope / package and it has the other matching tag.

The tags have matching serial numbers.

This is a great way to send anything you want such as mail or small packages, to get to where you want it to go. Of course this is through the u.s. Mail system. That is a whole different subject.

U.p.s. Is another story.

When certified mail is sent return receipt requested only, the party to whom it is addressed may sign for it. Others may sign for it such as a secretary or wife or even fellow workers, but it is actually illegal and would be subject to argument in court.

I use this extensively in my office.

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Certified mail and certified mail return receipt requested.

Registered mail with return receipt (lock) - unlike certified mail and certified mail with return receipt; this type of registered mail is delivered only to the person to whom it was sent, addressed to, and a receipt with the receivers signature is returned to the sender. The parcel must be signed for in order to receive it. It is against the law for anyone other than the intended party to sign for it. The signed receipt is then returned to the original sender, thus verifying that the mail reached its destination. However there is an added security benefit with the registered mail; anyone who handles this parcel from the moment it sent, must sign for the parcel, thus creating a list of handlers. This is supposed to be a high degree of security for sending a parcel. Similar to handling an evidence bag. The parcel is somewhat insured. However; my experience with the parcel which we sent registered mail to the senator the honorable Jesse Helms in North Carolina December 1998, was supposedly delivered and no one even signed for it at all. Our lives endangered ,the very reason for sending the parcel this way. Our lives endangered now even more. Anyone could have taken this package. Any time. Any where. I recommend not trusting the united states postal service. I would think it was against the law for the u.s.a. Mail carrier to have even left the parcel un-signed.
See certified mail. See certified mail with return receipt.
See evidence bag.

Banking Procedures

Automatic Monthly withdraws from your bank account are handled in different manners.

Debit - A Debit is when the Party receiving the funds is allowed to withdraw money (let us say every month) automatically from your bank account. However should you wish to cancel their automatic withdrawl from your account, you must change entirely your debit cards. All parties who use this account must be notified. In short everyone must suffer from one deletion.

Example: when The American Security Academy encountered poor business procedures with Microsoft Corporation and Bill Gates, ASA wished to drop the monthly Auto Money extraction from Gates. His leaching hands were on the ASA bank account thus adding to his Billions of ill gotten gain.

ASA had quite a chore in re-establishing accounts with the many other companies they did business with. It is very hard to pry the Pirates© hands loose from the easy money extraction.

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Draft

A Draft is when the party receiving the funds **is allowed to withdraw money (let us say every month) automatically** from your bank account. **However should you wish to cancel the one parties automatic withdrawal from your account, you may exclude the one company.**

Checks and Checkbooks

I have had many problems with private checks in certain parts of the country, especially in the northern region.

If I have taken twelve personal checks, I have had twelve bogus checks. A personal check says to me " I have no money and I am going to rip you off."

I don't care who they are, I do not take checks.

In the south, a new area of the country I am in, the check incidents are different.

All the checks here are good. The laws are pretty strict here and do not cater to slackers as in massachusetts u.s.a. .

I try to get a credit card number before I go out on service calls. The name it is under and expiration date.

If a call ever sounds strange or I have a " sixth sense " about a call , I will not go.

To be hurt or die is not worth it.

The bill paid and forgotten . Some people will also call you a year or more later and say that the lock never worked right and ask you to come and fix it. I never do.

Not without a service charge.

Anything could have happened to the lock. Even within thirty days. Especially if it were a commercial situation. Why did they wait so long to call? Wouldn't they have called right away should the lock not have worked properly ?

I have seen old buildings still settle and deadbolt and knob installations keep moving thus changing the latch and strike alignments constantly.

Book Keepers

It is best to keep your own books. That is what my mother used to tell me.

I personally like to have a book keeper either on a weekly basis or monthly basis do my books. I find that I just can not do everything.

The book keeper is usually a little less expensive than an accountant. The book keeper will maintain the books. Keeping track of all the little charges and so forth that the bank and others charge. This work helps when Tax preparation comes around.

Remember the story of my Sherborn Massachusetts book keeper Regina Carter who Misappropriated \$80,000 from my business.

So keep an eye on the book keepers. Some are very crooked.

This one was also a Tax Collector of the town of Sherborn Massachusetts USA to boot.

See the Section **Taxes**.



Credit

Credit is issued when money is owed in exchange of returned goods. In this way the distributor keeps your money, sits on it and collects interest for who knows how long. If you remember, you may purchase items against your credit. If the purchases are under the credit price no money or difference is returned to you. If the purchase price is more than the credit you will have to pay the additional costs. I have thousands of dollars out there in credit that will never be used.

Some I have forgotten.

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Credit Cards and Credit Companies

Your Credit, Their Credit.

You should never believe a credit company and its information.
Never.

My credit history says that I was born in 1907 I am an architect, dentist, I work for "Sumner Shein", and that I have all kinds of Sax Fifth Ave, and other credit cards that are outstanding.

My credit history shows that I have new vans, houses and the sort and that I have not paid my bills.

How these credit companies can print this trash is beyond me. I have written to the attorney generals, governors etc... All to no avail.

They have done nothing at all. I have mailed dozens of letters of certified return receipt mail and never had one response.

They will not change my history.
Many people will tell you the same problems.

These credit companies have connections and or nepotism is used in all the right places. For these companies to continue to disperse this trashy false information which effects peoples lives should be a crime and these companies should be made to stop.

The following is only one item of a list of fifty. This poor credit list printed about me by this company has been handed out to all sorts of people, has been rotating and changing for years and years. I have never had a bank loan because of these false accusations.

Example :

Case History: Equifax a known credit company.

From 1992, 1993, 1994, 1995, 1996, 1997, etc...

Equifax credit info services inc.
6225 sheridan drive / suite 118
Amherst, ny 14221
Phone 800-473-4835

Dear sirs :

This letter is one of many that I have written to you in regards to the following matter.

This is a copy of the last letter to you.

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John clymer ii / d.b.a. / a.b.c. Never owned a vehicle Ford motor
credit account
xxxxxxxxxxxxxxxxxxxx.
Please send me a copy of the signed sales / purchase agreement for
my examination.
Please change my credit history as soon as possible.

I never heard a word nor was my history changed.

Again yet another letter at another time.

Again I reiterate that mary x does not work for my company nor did
she ever work for my company.
John x / d.b.a. / my company never owned a vehicle Ford motor credit
account # xxxxxxxxxxxxxxxxxxxx.
Please send me a copy of the signed sales / purchase agreement for
my examination.
And or change my credit history as soon as possible. Sincerely,
john x

Never a reply

Equifax will not do a thing.

I never received an answer from either letter.
Equifax did however send me a bill to send Ford Motor Credit
\$1,000.00 as a payment for a vehicle I never owned.

Ford motor credit keeps sending me a bill along with a shaky /
sleazy credit collection agency.

Stay clear of this company.

N.A.F.S. National Action Financial Services Inc.
165 Lawrence Bell Drive, Suite 100
P.O. Box 9027
Williams, NY 14221
1-800-982-0484

This shaky / sleazy collection company has sent collection bills
for this same van, over and over and over. They want my hard earned
money \$\$\$\$.

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I have written and told them over and over and over that I never owned a van from Ford, but all my letters are ignored and the harassment persists. I have asked for receipts and signed contracts again, the attorney generals and governors are worthless. The dozens of letters to our elected officials all go un-answered. It is a disgrace.

They have never investigated . All they know is that they want to collect \$ 1,798.66.



As a matter of fact today Saturday, September 14, 2002, and my credit history is still the same.

It is unbelievable that the American people allow this type of behavior to persist from all of these parties.

Thursday, October 17, 2002

Liz and I went to Sears and applied for credit. Liz was granted \$10,000 credit line. I was denied.

Remember Liz is a Grand Mal Seizure Epileptic on disability.

I am an owner of several businesses.

I do not owe anyone anything.

I was denied due to "Bad Credit". I don't have any credit.

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Credit Cards in a Real World

Some banks are extremely high.
BB&T Wanted to come out to my house and see who I was. They wished to see if I had money. Plain Nosey People.

Credit Cards E Commerce

Merchant Services can withdraw funds out of your account without further authorization.

Case History Bank Fraud the Data Corp.

Harbridge Merchant
Roger Pierce President

we were using electronic master card and visa.
they would automatically deposit or debit your bank account electronically.
for years i had been using the slow paper trail method. i would run their card through my hard copy machine. i would then send my copies from all my sales in a two week period through the mail to peachtree bank and several weeks later i would receive my check. a little slow but without any hitch.
it worked great.
then master card wanted for me to go electronic. that was a mistake. they wanted to go electronic to remove money from my account.
the money would be withdrawn for twenty four to seventy two hours. then the funds would be re-deposited back into the account.
possible drug buys or land purchases ?
i do not know.
we had been experiencing quite a few bounced checks. this was upsetting to us to say the least. in ten years we had bounced five checks of thousands written, now thirty checks a month were bouncing. we contacted our bank and they said that it was our master card service who was withdrawing the funds.
we contacted harbridge merchants the master card service and they were quite upset when they realized that they had been caught.
we tried for over a month with dozens & dozens of calls to harbridge merchants trying to straighten it out.
roger pierce the president of the data corp. was very cowardice and spineless. he never returned one call to us.

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roger pierce would have a so called assistant call us back with childish prattle of how the , sky was blue and the grass was green. certified letter after certified letter. calls to roger pierce nothing.
certified letters to the attorney general, nothing.
another five months later, another forty checks bounced. if roger pierce's people did call, it was only to argue and antagonize. lies of people saying they were the companies president or people telling us that the manager to whom we had just spoken with, was not a manager at all but an under link.
c. office of the comptroller of banking 800-613-6743 refereed the case to the california attorney general / no phone / no address /. no phone or address for the attorney general !
our bank says, funds are still being removed daily and it is greatly effecting our account.
c. office of the comptroller of banking / i called central washington d.c. / they will contact district office someone will have g. a. call us / explained to c. , money in and out.

- 1) misappropriating moneys illegally out of my bank account.
- 2) has caused discomfort, anguish and great embarrassment by causing the bouncing of our checks.
- 3) has in no way tried to reach a conclusion or apologize for these horrendous business procedures.
- 4) has knowingly, (even though notified), continued to misappropriate moneys from our account. in some instances doubled or tripled the necessary amount of funds to be withdrawn.

the deposits that we put in the bank are withdrawn daily and then put back several days later. in the mean time checks bounce continuously. not one person returns a call or will put anything in writing. to put anything in writing would mean admittance of wrong doing. empty calls from spineless snake like people. one person referring to another, to another, to another.
all empty calls.

we finally closed the bank accounts down. we had no choice.

try your best not go electronic as in your banking. when you let others electronically withdraw from your account
you are looking for trouble.

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we strongly recommend covering yourself.

Snake



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Decision Making

I have made Business and Personal Decision Making an area in which to devote; understanding, reality, priority, practicality, and other sound thoughts in to.

I have made it a rule and always stick to it.

- I never make any major purchases or decisions without first consulting the other party.
- I always sit on any decisions for at least twenty four hours.
- I try to avoid emotions when decision making as well.
- Prioritize and be Practical.

Our major rule is:

I always sit on any decisions for at least twenty four hours.

There is no "Deal" which can not wait until tomorrow. And if the "Deal" can not wait, then it just was not meant to be. Keep in mind "Timing is Everything".

I do not purchase anything without a twenty four hours "Talk About It Program". I discuss the pros as well as the cons.

Try it out. Sit on any decisions for at least twenty four hours. This includes; computers, televisions, vehicles, jewelry etc... Sleep on it.

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Distributors & Manufacturers

Manufacturers want people to buy their product and the manufacturers want to get top dollar.

But manufacturers do not want to deal with the end user, locksmith, client, customer

This is you;

Only a "locksmith" in their eyes. They do not want to deal with you.

So, they created the manufacturers representatives and distributors.

The representative is supposed to represent the manufacturer.

The manufacturer wants your money, but they do not want to deal with you or to hear from you.

Take any security manufacturers product for example. For over twelve years I bought and promoted a certain security product.

The manufacturers nor distributors did not help at all with any advertising fees.

I have asked the manufacturers of products the following question / statement:

With only their manufacturers product name used in an advertisement, I asked them to pay a percentage of my business ad, 5%, 10%, 15% . Whatever they thought was fair.

I would use only their brand name. No one else's.

I would present the advertisement to them for approval.

I would present the advertisement and paid bill to them.

Not one manufacturer was ever interested.

I'm sorry. But did I miss something here ?

From all of my experiences, advertising is very, very expensive.

You will find out how expensive it is.

Do these companies realize what it would cost them to run advertisements in all of these phone books trying to sell their products ? The advertisements in the big magazines cost thousands of dollars a month per inch. \$15.00 a word. \$15.00 a word.

Who do the distributors and manufacturers think they are fooling ?

Not me.

You will find there are no brand names in any of my advertisements.

I work my advertisements without them .

Everything will work just fine. Trust me. Experience and a lot of money spent investigating has proved this to me.

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Carry what you want in stock. If you want to drop a product for any reason, do so. You won't look bad. No one will know because you did not use brand names in your advertisements.

"deadbolts installed." Simple, no brand name.

When someone calls and asks about a deadbolt installation, I then tell them the manufacture. First, get them to call you.

I have purchased brand new entire lock sets and deadbolts in order to have spare parts. The parts when bought separately are staggering in price. The lock would be valued at over three times its price if built by parts.

Don't forget to add in the shipping charges on any stock you have purchased. If your local to the distributor and you pick it up yourself, your time is valuable as well as transportation expenses such as gas, oil, tires wear, tear, insurance's.... Get the picture.?

These spare parts you collect, a scratched knob here and a defective latch there until you have hundreds of parts. That's great for the manufacturer \$\$\$\$\$. Real bad for you. ----- \$\$\$\$\$\$.

Then the manufacturer changed their product line.

They drop that type of deadbolt. Boom !

You have thousands of dollars worth of stock and thousands in parts. You eat it all.

As long as they made their thirty thousand dollars plus profit on this chump they are in the green. \$\$\$.

That's a lot of knob installs and deadbolt installs. Plus other costs.

Now they change their manufacturing so you have to start purchasing all over again.

What a scheme. Now you start all over again for another decade of purchasing and collecting parts etc...

This is not just one manufacturer, but all manufacturers at a time !

All the time.

The distributor will say if you find something damaged, simply return it and I will give you credit. Who pays for all of this shipping ? You do.

You already paid to receive it and now you will pay to send it back.

One or two parts are hardly worth the shipping cost.

With you paying for shipping you always loose.

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If you save the damaged stock and ship a quantity at a time the distributor yells at you to send the defective parts back as they are received. Sure, the distributor is not paying the shipping, nor does he have any money tied up in the product which you have paid for and are sitting on.

I have nothing better to do all day than to ship faulty defective equipment around the country for repair. All day every day.

What am I saying ?

This is exactly what I do. All day every day.

You loose.

A return call slip for merchandise return is a joke.

The distributors send you damaged goods or even the wrong goods on purpose. This is their way of getting rid of the junk they no longer need or want.

Lets say they send you the wrong box of key blanks.

Being a professional I will keep the wrong key blanks that was sent, in stock. Now that I have them.

I am expanding my product line although they are not the correct Key blanks that I needed.

This delay in not receiving the correct product, will make me look bad to the client.

I am actually wasting my money keeping the distributors culls, but it would cost me even more money to re-package and send the product back.

So, I will keep them.

The distributors play on this. And the Associations do not care and will do nothing for you but soak your hard earned money.

This means that I still have to order the correct key blanks again. The distributor knows this and makes multiple sales in this way. If you notice they have minimum order requirements. Fifty dollar minimums etc...

A pretty slick way of making multiple sales and money.

Please remember this when purchasing tools, books etc...

The manufacturer makes a seven cent lock pick and sells it to a distributor for a dollar and a quarter. Notice that the manufacturer made a killing on the profit end. .07 cents selling for \$1.25 cents.

The distributor resells the \$1.25 pick to the "locksmith" for five dollars \$5.00.

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The distributor makes a handsome income also. \$1.25 turned into \$5.00.

And the "locksmith" / writer (me/you) must at least double my price if I am to survive at all.

Can you imagine trying to sell a seven cent lock pick for Twelve bucks?

Everyone else at least doubled their price. Everyone else made a good cut.

The big safe manufacturer in Eastwood Station, Syracuse, NY will send you a price sheet with the suggested manufacturers retail price. They tell you what you should sell the product for. The profit for you is \$20.00.

When the safe manufacturer sold the safe to the distributor, the safe manufacturer did so selling a fifty dollar safe for \$250.00. The safe manufacturer made a profit of \$200.

Then the distributor sells the \$250 dollar safe to the locksmith for \$380 dollars and the distributor made a profit \$130. But the stupid locksmith is told to sell it only \$20 above cost.

Think about it. The associations do not stand for the locksmith. Shipping, advertising, the time spent with the product and client, etc.

You need to make a profit or you will not stay in business.

But, remember when you have a problem with the manufacturers product you send it back to the manufacturer not the distributor from whom you purchased the product at an extremely high price.

The distributor is a costly and useless cog in the world of locksmithing / security and also in general. The associations know this and do nothing.

If you have a problem with an item the distributor tells you to ship it to the manufacturer. All the distributor does is re-distribute the product while raising the price five fold.

The manufacturer wants to make money in mass, not selling a set of picks at a time. \$\$\$.

They want to sell a box of fifty at a time. The dollar is important (\$\$\$) not the end user. Money \$\$\$.

I tried every manufacturer and almost every distributor in the United States of America trying to procure locksmith tools for you the reader.

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The manufacturers told me that I only wanted to use their name to make me look good. So Arogant. So New American©.

The manufacturers would tell me to take a long walk and for me to talk to a distributor. I did talk to the distributors and none helped.

Not one helped.

Mcdonald Dash locksmith distributor in texas insisted that I show proof that I was in the locksmith industry. He told me how security minded his company was.

He would sell no products until I showed him several pieces of proof as of to my identity.

I photo copied my certificates and mailed the copies certified mail.

I never heard from the distributor if they had received my important credentials or not. Big security minded company.

You will see as you go.

When I called the distributor three weeks later and asked if they ever received the papers. The distributor merely said, "oh yeah."

Real security minded.

The same distributor was to call me about an Inspection Light Bulb and never did. The distributor told me that the bulbs were back ordered, the bulb manufacturer said not true.

But the same distributor manages to be able to send me fliers and sales papers about their product every ten days don't they? \$\$\$\$\$\$.

You will find this a locksmith/security item to learn.

You are on your own when it comes to tools, product, availability, reliability, honesty.

I am trying to make you aware so that you do not have to learn the hard way. But you will learn and find out the hard way anyway.

Again I apologize for the lack of tools offered in the Master locksmith security encyclopedia Set© and or the cost of tools.

The manufacturer does not sell their security product to security installers/personnel, the manufacturer wants to sell to individuals in order to re-distribute in quantity and make money.

The distributors are not security minded or security individuals at all. There is a difference.

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Then there are those distributors that scream I am a Certified Master Locksmith we also do work here. We are not just distributors of the manufacturers security product, we install it.

Yeah! I know. Thieves.

Manufacturers Installing Distributor

I have had the Manufacturers Distributor quote stock prices to me for my Clients Lock estimates at twice the Distributors Install price.

One Distributor Pasek on third St. In Massachusetts was/is just this type of Security Manufacturers Installing Distributor.

Case History:

I was called out to Bose Corporation in Framingham Massachusetts one rainy Sunday night.

Rainy, dreary and late. I assessed the situation.

I had been servicing some of the Security equipment for Bose Corp. for several years. The client was pleasantly pleased to know I was a state "Licensed" low voltage specialist as well as Master Locksmith Security Specialist®.

They would call me every now and then, at night, in the rain.

The client being a billion dollar global company would not sign any service agreements with my company. I did not have the "Big Boy Name".

I did not perform any of their Master Key Work. They would call me only when they needed the best, the Master Locksmith Security Specialist®.

The Shit Catcher®.

The new thirty thousand dollar Schlage computer Security System had failed again. The client informed me that the System was only six months old but the Manufacturers Distributor Installer had ignored dozens of calls to repair it. They had been paid and that was that.

I investigated and found the problem with the new equipment.

A major part was needed for the electronics and I knew of only one distributor who carried that particular piece. Pasek in Boston.

I assured the client that I could obtain prices from a distributor for the needed product first thing in the morning.

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I called the Pasek Distributor and could not get a price or square answer, he was the only distributor available that I knew of.

I called Schlage the manufacturer in California and tracked down a distributor of the manufacturers product on third street in Massachusetts U.S.A.. The same Distributor I had just called. Pasek.

Schlage told me that there were only several of their "Unique" high Security Systems in Massachusetts and only this one, Pasek distributor distributed and installed them.

I called the Pasek distributor back and the distributor quoted me \$2,800.00 for the replacement cost of the manufacturers product. The special order part would be over two months for the part to arrive, **cash up front**.

I of course had to add on my profit which was only two hundred bringing the parts grand total to \$3,000.00. I mean come on. How much can you "Rape" a client for? I usually double my price, but for a small electronic part, come on. The electronics was worth about \$2.00

I called the manager of Bose Corporation (my client) and told her my quote.

After I did not get the contract the client informed me (off the record) that this particular Pasek distributor called her up and asked if there was trouble with his equipment? The distributor knew who used that particular rare Security equipment in the area. They manufacturers installing distributor had installed it.

The client wanted to get out from the speciousness of everything. She informed me that the distributor had just called her saying they had the Schlage Special Order Part **In Stock** and they could **Install It Including The Part And Labor For \$600.00** . What a bunch of crooks. And Association members to boot.

I was shocked! (not really a thief is a thief and they are Association members).

I looked like a thief a liar and a few other things to my client. Three thousand bucks and several months.

The distributor had no right to call my client! At all! Bose Corporation was my client. Not theirs.

How dare they call my client?
The manufacturers installing distributor knew who needed the part.

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Schlage the manufacturer said that this Pasek installing distributor was the only installing distributor in Massachusetts.
They are all in bed together.

The special order part sure was in stock for the service people of the manufacturers installing distributor.
A manufacturers installing distributor.
It sounds like verbal trash.
Sewer of the mouth. And it Stinks!
Talk about conflict of interest.

The distributor violated my clients Security by even calling my client about our Security. That is why I was hired.

The distributor then quoted stock **at half the price to my client "Installed"**. If they quoted half the price with install, this means he was still making a profit. They were ripping me off!

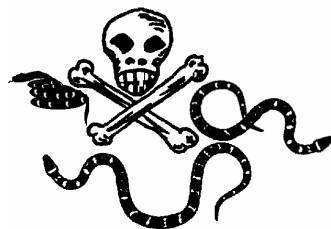
If the distributor was making a profit at half the quoted cost with install, what was the distributor making by charging me twice as much without install ??????
Crooks and thieves. And I was even willing to pay.

On top of that, the distributor in the Security business knew of only a handful of these computers Systems that are in the state. He used this "Sacred And Silent Trust" to contact my client.
The client should have been scared to death. Cut throats.
They should have been furious to have been contacted in this manner.

The women in this very large building were furious.
I was not about to explain the breech of Security.
I would have only been a jerk.
The distributor has a record of who bought what parts and when.
Then he cut throats the little guy and steals his business.
What a racket.
The Security Industry is very, very SLEAZY! So Beware!

By the way, they are members of the Associated Locksmiths of America and or attend all of the "Security conventions".

These are fair Security Industry business practices?
The manufacturer and distributor work together to get your money any way they can. Usually with underhanded and deceitful practices. \$\$\$.
These are the people that the manufacturer insists on doing business with. They are bread winners. The Associations love them too. They pay big dues with super generous contributions.



Hey, we are not talking about paint here. We are talking about liars, cheats and thieves. This is the Security Business. This is the business you are inquiring about. This is the business you are either entering or interested in purchasing a product from.

I am available for private consultation if anyone would like to contact me. Give me a call. Serious inquiries only, please.

And on the other end of the spectrum :

Many manufacturers and distributorships have never worked on a lock in their life. All they did was purchase a currently established business. It also only means money \$\$\$\$\$\$\$\$\$\$.



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Case History:

The same Pasek distributor told me that the brand name .003 increment pins for schlage 3 depth .210 were not in stock. They told me this garbage for over three months.

I had already purchased the brand name pinning pins elsewhere. I was conducting my own investigation.

I called the brand name pin manufacturer in terryville ct. I explained to them as I did to the manufacturers distributor of my professional security service and the urgency and needs of a security specialist. I asked when would they be sending this distributor a shipment?

The pin manufacturer informed me that this distributor had been in receipt of several shipments and that this particular increment was included.

Investigation:

I had several calls placed to this distributor from my clients around boston.

Security work was performed by the manufacturers installing distributor. The reports from the agents/clients who had requested work said all service technicians who had rekeyed their locks all had the pins in question and idle chat produced plenty of stock available.

I hope that you the reader understand the direction and point to all this. You are being short changed and shafted by the manufacturers, manufacturers distributor and the manufacturers installing distributor.

The manufacturers installing distributor new I was "Competition" for them and would not supply security product. Or at a reasonable cost. Or in a reasonable amount of time. So much for a distributor.

And the distributors who perform work (installing distributor) should be dumped from the security industry. Cheats and liars.

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Case History:

I was trying to purchase a dozen "charlie bars".

I called the manufacturer. The manufacturer informed me that the bars cost more to purchase direct from them, the manufacturer, than if I purchased them from Pasek Distributor. The manufacturer wanting to make money was quick to give the name of the Pasek distributor.

A manufacturers installing distributor.

I called and placed my \$50.00 minimum order.

It was the same installing distributor I had dealt with on other lovely occasions.

The honest; trustworthy, security oriented, manufacturers installing distributor sent me four different boxes, containing three charlie bars each, in fulfilling an order for a dozen charlie bars.

All four individual boxes arrived by U.P.S. At the same time.

They had been shipped at the same time. Yet all individual boxes each \$10.00 for shipping. \$40.00 just in U.P.S. Charges.

I couldn't believe the U.P.S. Charges. I called up the manufacturers installing distributor owner and had words. I asked if he owned stock in U.P.S.? "Sorry" he said. "we tried to fulfill your order and shipped out the stock as it was acquired".

#@@# %#@ .

The manufacturers installing distributor is in cahoots with the manufacturer. The installing distributor purchases quantities of manufacturers stock at great prices and then **Installs** it for practically nothing. When you a locksmith/security person purchase it you pay top dollar. You are after all competition.

The installing distributor looks great to everyone else because of their supplying supper low product with low install rates. You look bad and are the one paying for it in every way.

The manufacturers installing distributor will beat your price every time. They are the ones supplying the stock at jacked up prices already.

And if the manufacturers installing distributor does not want you in business because you are good (the "competition"), they simply will not have the stock you require or will charge an outrageous price for it.

Real security people in this industry.

Every single manufacturers installing distributor is the same.

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Then, if this is the case the distributors who are not installing manufacturers products are then not practicing security specialists and therefore are unreliable, un-knowledged and unnecessary.

I have dealt with hundreds if not thousands of individuals in the security industry who claimed to security specialists and who hardly knew anything if at all about security.

I personally do not need to pay ten times over the cost of a manufacturers product because they do not want to deal direct to me.

The manufacturers either have some shlump distributor who knows nothing of security, selling their product, making big bucks, or it is a manufacturers installing distributor making a killing at your expense.

You will see in this industry how it works as you go.
My goal here is to open your eyes and make you aware of the pit falls and Snakes©. Have you noticed the Associations do nothing?

Over and over.

I have conducted hundreds of investigations and interviews.
Many cases just happened through circumstance.

Snakes©



Locksmith Ledger International Magazine

May 2000

The ledger had a letter to the editor. One was of a woman who has been mistreated by the locksmith industry distributors and manufacturers etc..

The ledger printed her story. And??? What is ever done??? Who cares?

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Advertisers Give A Ways

Usually these gimmicks are false and are only used to lure the unsuspecting victim in.

The Master Padlock scam I went through was only one of many. HPC and their Code card scam is another example. Some of the other manufacturers and or distributors offer free service kits, tail piece kits etc...

Do not order simply to acquire the gift, because you will loose.

Every time that I have been offered something I have never received my rightful goods.

Locksmiths Replace For Product

When a locksmith needs a product from another locksmith the two locksmiths should trade for the product. In other words locksmith #1 borrows a single sided deadbolt from locksmith #2.

Instead of locksmith #1 paying or owing money for the deadbolt, #1 simply returns a single sided deadbolt of the same quality to locksmith #2.

One locksmith may be able to purchase at a higher or lower price than another locksmith. So the best way to approach the situation is to simply replace the item that was borrowed.

Products

If I do not call and request the product I am not interested. I presume that there is something wrong with the product thus the persons reason for getting rid of it.

When I have an interest in purchasing a product or program I will look for it.

If the sales person would like to discuss the product and or program with me for my future purchase I may listen.

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Distributors / Manufacturers

Continued

If you have a unit manufactured that has the price of ten dollars to manufacture, the manufacturer will quadruple their price in order to make a profit.

Now the manufacturer sells this product to a distributor for thirty dollars each unit.

The distributor will purchase a minimum of five hundred dollars worth of merchandise in order to purchase at the low price of thirty dollars.

After the purchase, the distributor will at least triple their. Raising the unit price to sixty to ninety dollars plus.

Now along comes the locksmith and purchases a ten dollar manufactured item for sixty to ninety dollars.

The locksmith could double or triple the price...to \$150?.... That's crazy To survive.

Wow! If the locksmith only doubled the price, the unit would sell for over one hundred thirty dollars. It only cost ten bucks to make. What happened?

The locksmith can only tack on a little profit without being ridiculed for being a thief.

So you see where the distributor and manufacturer stand.

Case History:

I wrote and called the Arrow in Brooklyn NY, knob & deadbolt manufacturer about my placing their name in front of you (the reader) they said that distributorships start at twenty five thousand dollars.

Arrow said that they did not want any new distributors and that they had plenty.

This was the same knob and deadbolt manufacturer who stopped making a deadbolt after my investing over thirty thousand dollars in product and reliability.

This is the manufacturer who pulled the, "drop the deadbolt product" routine. I wrote to the president of the company.

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Arrow nor the president ever returned one letter.
In ten years I wrote about ten letters. Not one was ever answered.
I am telling you it is a disgrace.

Manufacturers & distributors are a breed in themselves.
They want to sell you product and make money that is it.
That is all!

Every distributor that I have ever written to, never listened to
what
I asked or had to say.

Case History:

The following is part of a letter sent:

Dear manufacturer.

(I have credentials. XXXXXXXXX....)

We ran a trial program in the past with tremendous results.
Our clients who purchased the program have all asked for tools and
or where to purchase them.

Every one of our clients purchased your brand name on my
recommendation.

We highly recommended your company to the industry.

(This letter was written to the manufacturer of the code cutting key
machine who ripped us off with the foreign cards. HPC.)

We have revamped our program and are preparing to market it sometime
in the summer of 1997. And with greater success than before.

We have always used HPC products and they are highly recommended in
our program.

Every one of our clients needs HPC equipment and we are your first
hand sales people.

Our Proposal:

We would like to purchase stock at the lowest possible price.

We would like to offer a specials kit found no where else to our
students.

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A special kit at a very special price, or any merchandise that you might consider providing for our "special offers" to our students.

Introducing our Locksmith students to HPC, thus your foot in the door selling additional product.

We guarantee you will be quite satisfied.

Please let us know your decision as soon as possible in writing.

Could you please send a catalogue with wholesale prices.

Thank you for your time.

Sincerely

I never heard a word

With follow up phone calls I called all the companies that I wrote to.

The manufacturers would not talk to me. And if they did, it was only to laugh as I suggested such a program.

Several manufacturers said they were interested, but never called me back at all.

One, wireless security systems manufacturer, made an appointment, canceled, and never rescheduled as they said they would.

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If your manufacturing or distributor company thinks that it might have a product which is worthy enough, durable enough, and priced right, I might possibly promote it or purchase it and redistribute it to serious security specialists (you the reader) who want to purchase good stock at good prices...

If I do get involved with the product of any Manufacturer, they should be flattered.

Why should I promote, carry, handle, sell, and ship their product ?
Not to mention returns and so forth.

I have all of the locksmith / security tools I will need for many, many years to come. It is you the apprentice that needs the tools at a good price. I tried. You will see they are all nasty.

The manufacturers are the first ones who benefit from sales. Then the distributors.

At the bottom of the barrel is us the locksmith / security specialist.

Many sales over a long period sound good to me.
It doesn't always have to be slash and gash.

Sharks & snakes



The master locksmith security encyclopedia™ will be wanted with or without their stock.

I planned it that way.

I was going to promote all of the products for free.
Free advertising.

Mentioning the names of products and manufacturers.
That has all changed now.

Now we will advertise for a fee if I even advertise at all for any of them.

The distributors around the boston massachusetts area also have their own locksmiths. I have had the distributors deny me stock, yet they were out performing the exact work I needed stock for.

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ALOA and the Rental Companies Used 06/03/03

The Associated Locksmiths of America was boasting that its patrons/members would get special rates and things from a well known rental car company **ALAMO Car Rental** located near Alamo Texas.

ALAMO Car Rental As well as other weak promises made by the Associated Locksmiths of America the vehicles were never available.

I was in need of a vehicle at one point and was an active paying member of the Associated Locksmiths of America for years.

I called the **ALAMO Car Rental** number I was given and finally got a hold of an individual who informed me that the closest vehicle if he had one was five hundred miles (500) away and that it would not be available for five weeks. We spoke a little longer on the phone and I hung up.

Hollow and weak promises blew away like smoke from a cannon ball, I was deceived again.

All of those dues and money spent, only for people to put in their pockets, and for what? So that they can say they are a Certified Master Locksmith or the president of the Associated Locksmiths of America with a deep arrogant tone of voice.

And the manufacturing companies (lifetime Associated Locksmiths of America members) are selling key machines and tools at ten times the value to you and the locksmith community and or organizations do not care in the least. All they know is that these major players are giving them big bucks \$\$\$\$\$. And they love it.

And if the Associated Locksmiths of America plays the game right with the major players, they will be in the green. \$\$\$.

Positive Ethics© never come into play.

Look. I am a machinist/fabricator. When I look at a tubular key machine that I know cost the manufacturer about \$125.00 to make (this price includes the motor) and the manufacturer and or manufacturers distributor is selling that tubular key machine for \$800.00, there is something wrong.

When a car opening tool which cost less than two bucks to make sells for \$35.00 in this industry you are being scammed.

These people are making a killing on you.

And when the Associated Locksmiths of America allows the raping of its members like that is a travesty. Every manufacturer and manufacturers distributors is doing it and they are allowed to do so through locksmiths and organizations and State Licensing Boards. They are handing over big bucks to these organizations. They are all in bed together, screwing you at your expense.

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The Locksmith's should create new organizations which should be creating their own low cost tools.

They never would, this would take money away from the ones they really love and who kick them big bucks.

Fake, bonds, magazines, contests etc... All allowed to continue when exposed. Where does it stop?

More fraud, underhanded, deceit exposed by the Clymer's.

We will continue to do so.

Would you like to hear more ? Let me tell you....

Third Party Billing

The manufacturers and manufacturers distributors will not return letters or telephone calls at all. But they want you to have a yellow page advertisement running continuously for them to call. To be right where they will reach out for and to call you at a moments notice. Of course twenty four hours a day every day of the year. That's nice.

Sounds like my friend Liz.

You are expected to run right out on a saturday or sunday, rain, snow.....be bonded, insured, have the correct knowledge and tools and open their vehicles without a hitch.

The distributors usually want to bill it. To a headquarters or home office. They may want to wait thirty days. And there are those that want to do third party billing. Do not do it.

The third party usually says that they did not order the work and will not pay. When you contact the original party they will not pay it saying "the other party said they will pay it and it is their problem". Another form of Bounce Around.

Why set yourself up. No third party billing.

Its bad enough you are running out to someone who you do not know called you on a moments notice to do something that they failed to plan on.

**Failure to be prepared (plan) on your part
Does not constitute an emergency on my part.**

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They want instant credit (you can't get instant credit anywhere).

The manufacturers distributor does nothing about establishing a relationship with someone they may need at any time.
You are just a locksmith.

Let's look at this a second. Why would the manufacturers distributor even call you ? They have mechanics, tools, key cutting equipment, key blanks and more. The mechanics go to their schools and are well trained on the manufacturers product. So why would they call you?
They do it themselves. Their starting rate is \$100.00 and \$60.00 an hour plus parts.

In other words there is more to the story. The mechanics have all gone home to picnics and other good times. The big home office, the multi billion or trillion dollar headquarters is closed for the weekend and a key code can not be had to cut a key.

In other words you are a hot commodity. In other words if you have the yellow page advertising to grab them, (and you know how hard it is to get competent yellow page advertising) knowledge, tools, insurance, bonding, and more....you can nail them for big hard earned dollars.

The manufacturers distributors have obviously been using someone else for their security. Whether it be their own employees working on vehicle locks or a locksmith from outside.

Who has done the vehicles, buildings lock work, buildings hardware schedule, master keying, security system, cameras etc ?
Did you ?

Probably no. Or you would have had a better professional relationship established.

If not why don't they call one of the original installers ?
They are not available. They never are. They got the big high dollar install and you get to clean up their left over messes.
Ohhhhh, I see.
You get the clean up the dirty work.
Well I charge to clean up other peoples messes and you should to.
Whack them. \$\$\$\$. Wait until you purchase a key machine for a thousand dollars. Do you know how many keys one has to cut at \$1.00 each in order to even pay just for the machine? The cutting wheel, electricity, the key blank, the knowledge of how to, not to mention man power, insurance, bonding and more...

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GM Ten Cut System Locks

Case History:

12/99

Allied lock

I purchased a gm 10 system lock kit. It cost well over \$100.00 u.s.a..

I when I received the \$100.00 kit, I was shocked and put aback.

The kit contained a booklet that was printed for less than .60 cents.

Some rocker picks which would cost .22 cents each, and which were not needed. A regular pick set would do.

A couple of "specialy bent" poker tools. .12 cents

A decoder. .22 cents

A "special key". A gm key cut down on both sides. .60 cents

A plastic box to retain all. .90 cents

The whole kit did not cost over \$12.00 to manufacture. Total \$100.00.

And that did not include shipping or the minimum order requirements.

There was a no return policy.

The tools were not made through intensive investigation and trial end error. As I would have to do. No.

As a trained detective investigator I could tell that the lock was manufactured with the correct repair tools in mind.

I manufacture, fabricate and write.

In other words the manufacturer has an inside information center at general motors.

When I belong to chevy roadside to perform automobile openings, I can not even get information on the correct key blank to use. Yet this kit has all of the information one needs. There are little holes on the lock case for decoding. The holes just happen to be the correct size to install this decoding tool.

Now if I were manufactureing the lock why would I leave little holes?

Or how about relief notches to hinder the picking process? Well gm side bar locks are just about impossible to pick anyway.

Why add relief notches? Changes, changes, changes, money, money, money. Which the average consumer is un-aware of. Of course the security industry does not want to be regulated. Sure, they will police themselves.

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We asked the distributor if they had ever used the tool? No was the distributors comment they had never used one.

After I received the tool I was by-passing the gm 10 cut within minutes.

A simple process which was not worth the rapeing the distributor gave me. The distributor certainly did not care if the system worked or not

They were only interested in making money. \$\$\$.

The distributor did not suggest that I purchase a 10 system ignition in which to practice on. Luckily I ordered one with the kit.

There were no elastic bands supplied with the very expensive kit and which elastic bands are needed.

I wish I could get the inside information so that I too could make millions of dollars on tools.

The industry favorites are screwing the locksmiths all the way.

Remember a brick and a screwdriver will gain entry and start most vehicles. I hope you can see the motivation and intent of all of the key changes and special tools needed.

The gravey on top of the cake. And at your expense.

One key blank identification number is sold to fit a particular vehicle.

Another key blank identification number is sold to fit another particular vehicle. Yet when one crosses and investigates, the locksmith finds that this is the same key blank, only it is sold under a differnt number. Sure, so the key blank manufacturer sells more blanks.

And you need this new key blank. (which is really the same as another key blank). Twice as much inventory, twice as much money.

What scams.

Security minded. And they all belong to one of the american locksmith associations. And the locksmith associations support them.

The "a" "1" type manufacturer of this gm 10 cut system lock decoding tool is the same manufacturer who made an appointment with Liz and I and then canceled the day before. The owner said that he would call next week and re-schedual and of course he never did.

When ever we ask, Ford, gm or others for vehicle information they do not have it. The distributors tell us we can purchase distributorships for thousands and thousands of dollars and the distributors never deliver.

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An alarm supply distributor
In
Franklin massachusetts
Jb, an alarm supply company
Manufacturers distributor
Is a
Simpleton

Case History:

We have ordered security items for police stations, abductions, rape victims and a lot of other clients. Only to find that the items sent are wrong, or broken.

I had on over a dozen occasions purchased goods from this particular distributor in the past. His attitude was always belittling and demeaning. The other alarm companies (the safety signal companies) in the natick, millis, holliston massachusetts u.s.a. Areas were under great pressure from my companies security expertise and were speaking ill of our company and work.

We had previously explained to this distributor man (simpleton) of the poor quality in service and stock we had been receiving from an adem co type company. I spoke to the distributor man for about an hour on the telephone, explaining how important the correct and unbroken and burnt out stock was to protect my clients' lives. This manufacturer distributor guaranteed and insured us that he performed only the best service and his stock was not damaged and would be the correct stock ordered.

I informed him that this stock was to be used for a client that had been violated and that it was of the utmost importance to receive the correct equipment and undamaged as soon as possible.

I told him to send it out by the next morning and I would pay the extra shipping costs.

The package arrived three days later, j.b., The alarm supply in franklin massachusetts sent us an empty box. Empty. Empty !

I paid ninety dollars to u.p.s. For an empty box.

It cost me \$18.00 to cancel the check.

When I called the incompetent fool up (simpleton)
He said " sorry, mistakes happen."

I then asked if this was a joke ?

He said that

" we all make mistakes, it was a mistake."

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Unbelievable ! The large box had no contents at all. Think about it.
The 20" x 20" box did not even weigh 1/10 of a pound. Empty ! No
security equipment, nothing.
Check and paper work on file.

Seriously. How does one send an empty box that is 20" x 20" which is
supposed to weigh 30 or more lbs?
There are only a couple of excuses.

Your incompetent.
Your destroying competition for friends.
Your destroying competition for money or gain.

Manufacturers Fax Immediately ?

The security catalogues and magazines have reader circle cards
(bingo cards) that you may circle or check off the advertisers
survey number and receive the manufacturers information.
To speed up the information process one may call the manufacturers
number if it is listed in the advertisement.
Many times the number is not toll free and it costs you money to
call it.

I have called these numbers and received a long drawn out tape. I
left my name and number only to be called back.
When the manufacturer calls me back they usually tell me that I have
to fax my letter head to them along with my request for the item that
I want information on. The manufacturer also tells me that they will
fax me right back.
I explain that I will stand by to receive the fax.
I will ask and request several times a price quote.
I will oblige their request and immediately fax the information and
ask again for a price quote.

I am usually not faxed back nor do I ever receive the information by
mail.
If I am faxed back at all there is never a price quote.
Without a price, how would I possibly know if I would like to or
could afford to purchase their stock or quote a client a price?
I do not know many people that the price does not matter.
The reader survey card does not yield much response from the
advertisers. For some reason they do not like to send information or
prices to the installer.
Do not check off too many advertisers. If you do, the card readers
may not forward your name at all believing it is a prank.

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Manufacturer Back Stab

Case History:

I once had a client over to my house. He was involved with building a chain of hotels over in Europe and he was interested in a certain type of card access system. He wanted my quote for relocating, installing and instructing the installation for the seven hotels? A possible three year billing over seas. The international manufacturing company was located in the next town so I invited one of their c.e.o.'s

(chief executive officers) to join us for dinner.

I provided a catered dinner and dined the client and the access card manufacturer. The whole atmosphere was very professional.

It was all very nice until I happened to see the access control manufacturers representative, slip his calling card to my client and say " call me direct ." They were unaware of my awareness.

The evening ended.

Needless to say the whole deal shortly fell through.

My investigation revealed:

A year later the hotels were being built and you would not believe who the access control manufacturer dealer was ?

As I stated, I have had the distributors / manufacturers purposely undercut or low ball my price direct to the consumer and cut me out.

They are both slithery/serpentine so watch out.

Sharks and snakes



Drop Shipments

Be weary of the drop shipments. This means that you order the product from the distributor and the distributor ships the materials direct to the client. You never handle the product.

This is supposed to be done without the distributors name, address or phone number appearing on the package. They are not to supply prices etc... Of course this is for security reasons.

Your label is applied to the package as though you shipped it.

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You are usually required to supply your own labels.

However, I have found that;

The distributors will put their name, address, and phone number on or in the package. The distributors will add the clients name to their mailing lists. And the distributor will steal your client if you are not careful and supply the client with prices. Real low prices.

I have lost many clients do to drop shipments. Thus I ceased Drop shipments.

Federal Express

Federal express is okay, but costly.
They pick up and deliver on time with no damage to the property.
I have not had any problems with federal express.

That is a first.

Identification

You must recognize that all laws are not the same in all states. I am only writing about massachusetts, general law, commonsense and my own views and opinions.

They (the government) say to ask for an identification and proof of ownership first before opening an automobile. Massachusetts does not have licensing or certification of any kind to be a locksmith. (nor should they ever). You do not have to get any id or proof of ownership before opening a vehicle, house or business.

I did correspond with state representative. Doug stoddard about passing a law for licensing. A licensing law I felt would help guide the way for laws to be passed such as identification laws, proofs of ownership laws etc...

It really didn't go far. However doug stoddard did stop the passing of one bogus locksmith law.

Nice job. Well done.

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Another time the state was requesting a board of twelve people to sit in this committee.

Nine of which were non locksmiths and the three that would be locksmiths would have to have ten years experience each.

In my first five years of locksmithing twenty four hours a day three hundred sixty five days a year, I had more experience than some of these " locksmiths " in business for ten years, 9-4, monday though friday.

Some of the " experienced locksmiths " are the worst examples of locksmiths that I have ever seen.

I have changed completely instead of wanting licensing now I am completely against it.

Another way for the state to screw up and collect revenue, locksmith licensing.

What a mistake that would be.

Their definition of a locksmith was :

Anyone who performs work to a lock.

When you stick a key in a lock you are in a sense working the lock. Anyone then who uses a key is a locksmith. Any one who sprays lubrication into a lock is working the lock. Etc....

The government should reevaluate the definition.

There is more to being a locksmith than lubricating a lock.

Going back to the id problem.

Problem /

Proof of ownership is usually locked in the vehicle.

How can the person possibly show ownership papers ?

The registration ? What would you do in this situation ? Open the car and glove box, look at the papers? If they didn't match, throw them back in and slam the door shut ? You might be shot.

This is a foolish request.

Problem /

The persons id may not match the registration or ownership even if they had them. Maybe they borrowed the vehicle . Uncle, son, wife, daughter etc... They might have a completely different name.

My truck that I pay for and drive is actually owned by someone else. You wouldn't open the truck because my id does not match the registration locked in the truck, that is locked in the glove box ?

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Fill out your release form and have it signed. This your first defense and a good one.

Problem /

Opening someone's house, apartment or residence.

If the person shows you an id and the id matches the address, that is fine.

You are not responsible if they had a court order to stay out or they no longer live at that address. Maybe the husband or wife has a restraint. How are you to know ? Maybe they moved out previously and did not change their license.

Check with your state and local laws governing this procedure.

Inferior Stock

Purchasing and installing quality stock always pays off and does so even when you are not aware of it.

Inferior stock will only produce calls to do return visits to work on the faulty hardware.

I found that when ever I was called out to repair the other guys inferior stock, that the Cheaper the stock the harder it is to work on. If you install Cheap stock, be prepared to receive a lot of repair calls.

When you install quality stock and you do not receive a call at 2:am for repair, the stock paid off.

This is a statistic that is hard to prove, because you didn't get any calls.

I have been called to repair a faulty knob that I installed maybe once or twice in twelve years. They were factory defects. Even this type of call is rare. Very, very rare.

All are questionable.

Insurance

I will start with mail and shipping insurance and move on to other types of business insurance.

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When ever shipping an object with value to it, it would be wise to insure it.

I have found that when using the u.s. Mail packages tend to be lost, opened, damaged or even worse.

I have discovered that when packages are not insured or under insured they tend to never reach their destination. I believe that when they are insured well over their true value, the packages always seem to arrive all right.

The u.s. Mail certainly does not want to pay \$1,000.00 for a camera that is only worth \$500.00.

But yet when the camera is sent with under estimated cost or no insurance at all, it will never reach its destination.

Business insurance is another matter.

Basic insurance is not going to cover you. This insurance will cover you if you drop a screw driver on a tile floor and damage it.

However, they will not cover you should you need it for damaging a door. (which, by the way, you will be working on quite frequently).

Custom hand carved doors and the like may also arise.

I tried to no end to acquire an alarm installers insurance and it was always to no avail. I could not find it at all. All of the insurance brokers would page and cellular phone call me, all day every day etc... They were all going to do this and they were going to do that and not one ever procured insurance for me.

I could join the fire and burglar association for three thousand dollars a year and get the insurance at a discount rate of three thousand dollars a year or I could purchase the insurance for seven thousand a year out right.

Kiting Checks

Kiting (kite) a check is a very bad habit to get into. This is a poor way to handle business. It is all right to use in an emergency, a true emergency, but when used all the time, sooner or later you will find yourself in trouble. When one check goes sour, more are likely to follow. Don't start.

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Letter Head

Having professional looking stationary is okay.
However, nothing is going to help a poorly written letter.
I would suggest your letter head be similar to your calling card.
Each having the same logos and words. Easily identified.
Some businesses will only do business with you after first
corresponding on official company letter head.

I would not use an extremely expensive paper. Leave that for the
attorneys.
Envelopes to match with return address pre-printed.
If you have a computer this is even better.
You may design and change your letter head when ever you wish.

Master Card

I have had a lot of problems with this type of card and other cards
like it.
When I first wanted to take master card as a merchant I could not
afford it.
They wanted \$500.00 for the thrill of taking their card.
For several years I had to do without it.
Finally one day we spent five hundred dollars and acquired it. Oh
boy !
We ran the cards through a manual machine imprinted on the sales
slip. We then bundled these up once a month into a batch.

Master card did not want the slips sent one at a time.
I had to sit on my money, stock and time that was tied up for a week
or two until it was batched and then a couple of more weeks to
collect the check. A little over a month from the day of running the
master card through the machine.
I was solvent enough to do this. I was okay .

I had trouble with signed receipts. People would say that they never
ordered the work etc.. Performed. I would contest with
" then what you are saying is that I stole the card , made a hard
copy, and I forged the clients signature on two forms. One which was
the master card and the other my work release."

Now you can see the importance of these work release forms.
We would argue and fight and argue and fight and then after six
months of calls, copying paper works and proving that this client
owed the money I would get paid.

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It was hardly worth it. The time, stamps, money, calls etc...
Oh sure, master card stands by the merchant.
This happened many, many, many times.

**WHEN ONE WORKS WITH DIRT
ONE TENDS TO GET DIRTY**

Case History:

Master card called one day and told us of this terrific deal.
To go electronic.
Oh my word.
We would no longer have to batch the hard copies and wait for our money. Master card could guarantee direct deposit so that their would be no more discrepancies. I could take the Master Card Number over the phone if need be. The Master Card Number, expiration date etc.
Oh my word .
The electronic machine rental was \$60.00 a month.
It was a pain in theneck.

People would say that they didn't authorize this and that.
I would always reply in writing, " then what you are saying is that I stole the master card number , made a purchase, and I forged the clients signature on two forms. One which was the master card receipt. And the other my work release."
I would tell them that I need to know in order to obtain an attorney. This is a serious accusation.

When I performed the work I would always have the client sign a master card hard copy at the work site should they use master card.
And always use and have the client sign the work release form.

Case History:

It was in the middle of a snow storm when I was paged. I then made the call to the client. The client wanted me to go out about thirty miles to his location. After prices were agreed upon I took the master card number, expiration date and master card holders name. I went out into the snow storm.

Upon arrival to the hotel thirty miles away I was surprised to see three different tow trucks and two other " locksmiths ."

I new what was going to happen next.

The man standing by the locked vehicle waved me on saying

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" I am all set, I don't need you." I told the gentleman that I was still charging the service call.

He started yelling, screaming etc...

I left as he was threatening me.

I charged his account and thus the battle ensued.

I explained to master card that the client agreed to a service call of x amount of dollars.

To open the vehicle was x amount of dollars. And the client agreed. Whether the client used all of my services or not is not the issue; as the first step he hired me for a service call.

Whether he uses my services or not upon arrival is clearly his choice.

I then explained that I did not steal the master card number.

Master card finally paid almost a year later saying that my business was on probation with them. This happened dozens of times.

Stamps, calls, letters, certified return receipt mail, time, money, copies and this is not to mention the original gas, vehicle wear, tear, oil, insurance, tires, tools, phone calls, pages and the storms I risked my life to leave my nice warm comfortable home for.

After about five years of renting this machine for sixty dollars a month, I found out that a new company had taken over and needed for me to sign a new lease. The rental price had gone up with this new lease.

I checked on machine rental prices and found out I could have purchased this master card machine outright in the beginning for two hundred seventy five dollars.

I had spent over three thousand dollars renting this ##### machine and all of the trash with it and I could have purchased it outright for two hundred seventy five dollars ?

The bank carrying the master charges and I had a long, long conversation and the bank said that they would give me a machine for free.

Well the master card machine leasing company didn't like this and we were all fighting.

The master card lease company then filed with the credit bureau and put on my credit history a delinquent account. The charge was for a total and up and coming three year contract of three thousand plus odd dollars.

After many stamps, calls, letters, certified return receipt mail, time, money, copies etc... Nothing was done for me.

I explained that I never signed the new lease contract.

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I explained further that the address the master card leasing company was using was not valid and that it also was over three years old.

The equifax credit bureau damaging my credit for many years.
The story continues..

I wrote the attorney general and the governor and both never responded to my letters as per usual. So much for tax dollars or security. Just more cowardice activity from government officials.

Five years later after many stamps, calls, letters, certified return receipt mail, time, money, copies etc...

It was removed from my credit history. Only to have them start again.

In the meantime going back along the same time as the leasing company scandal; we were plagued with bank data fraud.

Because of the electronic deposits and withdrawals allowed through our mastercard account.

It was easy for the master card bank to steal and replace money in and out of our account. Bank data fraud.

The manager of our local bank pointed out the strange activities going on with our account through the master card electronic banking. Large sums of money removed and replaced every day. We printed it out and went over all of the activities together.

A long story made shorter; we notified the comptroller of the united states. Attorney generals etc.... Nothing was ever done. We had lost thousands and thousands of dollars through this method of bank data fraud. Our checks bouncing because of the rise and fall of thousands of dollars in our account daily. We finally had to close the account.

This story is related to our catching the police breaking and entering our premise in holliston massachusetts the united states of america.

I will tell you more of this story in an upcoming book. Look for it.

Do I encourage master card / visa ?



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Mail

For security reasons I never have mail sent directly to my house.

I usually try to acquire a post office box (p.o. Box) in a nearby town. I actually like the drive once or twice a week. Or everyday if need be in order to pick up my mail. The mail box is very inexpensive and affords quite a bit of security. If you send mail to your house and use that particular address when advertising. Watch out.

Fifty million people will be driving over. Sunday morning at 5:am to duplicate a key or to tell you they might purchase a house next year and would like you to do the security.

Any husband from a wife beating will be stalking you. If you think he was mad when he beat her, do you think he is mad at you now for locking him out of his house? Do you think the police will help you?

The mail is secure and locked inside a box. The key is basically unduplicatable. In this manner you will minimize any mail tampering, removal etc... And if you do encounter any mail tampering as we did, you will know exactly the source of it.

Supposedly the mail travels at times through large rooms with two way mirrors all around the top of the rooms walls.

Supposedly at any time, behind any mirror could be an inspector watching how the mail is handled.

Supposedly a mail handler will be fired if they study a postcard for to long or read anything but the to and from addresses.

Do not believe it. We have evidence bags full of tampered mail from behind the doors of P.O. Boxes. Mail deliberately opened.

A five year old could see that it was cut, ripped or torn open, tamper seals broken, yet we were told over and over

"it fell on the floor", "it came through that way" " the machine did that".

If they want to look at your mail, that is exactly what they will do.

Think security all of the time and don't forget your own security.

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Mis-guided Suggested Retail

Don't let the prices of a manufacturer fool you.

The manufacturer will sell you a product that costs xx amount and say suggested retail is this price. But when one checks the pricing they loose.

For Example:

Key boots for general motors keys b45, b46, 450 etc.. The suggested manufacturers retail price is .29 cents. Well that is not good considering when one figures out the flat rate of what the item cost just to get rolling is .25 cents. They are suggesting that the retailer only make .04 cents per key boot. That does not include shipping, handling, time etc..

They certainly made a profit. It cost the manufacturer .03 cents to make the colored key boot and sell it to the consumer for .25 cents. Now that's is great profit.

The retailer must at least double the price just to come out even. The .03 cent key boot purchased at .25 cents is now selling for .60 cents.

People calling the vendor, thief, crook etc..

The manufacturer would like the item sold at the price they recommend because it makes the manufacturer look great at the vendors price.

Be weary of the suggested retail price.

One must be aware of the cost that the item cost the vendor, shipping, handling etc... Then, at the least, double your price and that is the lowest that the vendor can go. Period.

The big chain stores and marketers quadruple, quintuple and more their purchase price. This is the very reason they can have a half price sale. They are still making four times their purchase price.

If they are making four times the price now at half price, how much were they making before they had the sale?

Name Tags

If the opportunity arises and you are to wear a name tag, be sure to place it on the right side of your body. In this way it is easier to read when meeting and greeting people shaking their hands.

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Operations

I found that by keeping my product quality and standards of operation high, that I always had work.

Attitude, if you notice the other locksmith calls there prospects "customers ." I call my prospects " clients ."

Advertisements in news papers such as specials I found do not work either. Why ?

Because the stores like true value and home discount depots sell the same items for less.

They sometimes sell the stock Cheaper than what I can purchase it for.

I have found that the quality of stock differs from a security distributor, than from purchasing from a hardware store. The hardware store will argue that there is no difference. I beg to differ. I have purchased both and compared.

Any way it does not matter. You have it over the hardware store in that

You sell service.

You will install, service and repair the stock you sell.

The money misers will call you and say I have purchased a lock at the hardware store will you install it ?

First, they probably purchased discount hardware and I won't install discount hardware. I am responsible for what I install.

Second, even if they had purchased an arrow or schlage product they did not purchase it from me.

This is where I could have made some money, from the sale of the stock.

I automatically raise my prices of service and install to make up the difference. I have to survive. I do not charge what the other guys charge. I charge what I need to survive and keep my business running. If the person was Cheap enough to purchase the stock elsewhere and

Then have the audacity to ask me to install it, they probably will try to not pay me, with the use of a bad check. They might even complain that the stock was not installed correctly.

If you do install their inexpensive hardware and if it does fail to operate correctly, they will have to return it and acquire new stock.

At that point they will want you to return and dismantle it to be returned to the store. Then you are expected to return and reinstall it.

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And of course you are not supposed to charge for any return visits. Who pays for any rekeying that you might have to do ? Wouldn't it have been easier for them just to have purchased the stock from you ? The misers.

So you can see this is a poor business move.

Turn them down or if you do the job, charge. Charge ! And make it worth your while.

You will end up going back to the job site, if you use someone else's purchased stock.

I have found that during certain circumstances when I have raised my prices really high and the people still agree to have you come out, red flags should pop up. Be careful ! There is something wrong.

For instance : two o'clock in the morning a call comes in from a young person wanting to gain entry into a premise. A red flag pops up.

The next thing they say is that the money is no object. A red flag pops up.

**Be weary of someone who says that,
the money and cost do not matter.
A RED FLAG should Pop Up.**

Every time some one has said to me "the money doesn't matter" I have had a hard time getting paid. When ever a business has said, " this company has lots of money, don't worry about the bill being paid", I always had a hard time collecting on the bill.

Try to get a credit card number if you can. In this way you will be able to charge them even if they refuse to pay.

If you take credit cards ?

Pagers and answering services

I have had different problems with answering services.

One of my friends called me one day. When my answering service answered, as a joke, dick left a message as though he were a client. He told me shortly after that another local locksmith returned his call.

The answering service was giving my calls to another locksmith.

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Make sure who ever is going to take your calls does not have a conflict of interest. Ask the answering service if there are any other locksmith / security persons with their operation. If there are you should seriously consider moving on.

Case History:

One answering service in franklin massachusetts was answering my business calls. This is when I noticed a drop in alarm sales.

After I did some investigating, I found out that the woman who was answering my calls was married to an alarm installer. She was transferring all my alarm install calls to him. Real honest alarm installers , licensed through the state of massachusetts.

They wouldn't steal your rings if they had the chance. Would they ?

Yes, people can even steal your pager's pages, calls, mail and business, and they will.

Make sure that your answering service has no other locksmith or security services with them.

Conflict of interest.

Have friends place calls every now and then and see if the calls make it to you.

These same people say they are in the security field.

I have had a " locksmith" admit to me that they had stolen.
Not much of a " locksmith" are they ?

At one point I was receiving over three hundred calls a month for work. I was in five phone books and under two categories with quarter page ads.

Case History:

Nynex told me that I was the largest advertiser in the nynex yellow pages. I was also one of the largest subscribers in the areas pager industry. After numerous problems with pagers not receiving pages, I dropped Mobile Media of boston.

Case History:

I then went to Map Mobile Communications. When I went on board I told them that I would be receiving over three hundred calls a month.
This was a mistake to have told them anything at all.

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I started to receive bills for over four hundred and five hundred calls a month. Well I thought it was a little funny since our nynex telephone lines were down for almost the entire month.

Thanks to nynex and don. But remember the governor and attorney general never investigated my complaints.

I still got a bill for three hundred plus calls.

I called the owner of map mobile communications and she insisted they were my pages. I told her I had not received them.

I informed her that nynex as usual had my phone lines down and that the phone lines could not have produced those calls during that period.

She then made a deal with me. She said "I will call a number that I will pick from your bill. If the party does not know you, I will cancel your bill". I agreed and I told her, "should they know me, I will gladly pay the bill , no questions asked".

She then randomly picked a number and called it. The party that answered, had never heard of me or my company.

She then tried to back out of our deal.

I was haunted by a collection agency for about a year, and then one day a nice collection man allowed me to tell him the above story. He asked "she made a deal and called one client her choice"? "and she reneged on her deal"?

"i am going to close this file, have a good day sir".

I said "thank you very much sir". We hung up and I never heard from them again. Thank you.

Pagers do have some good qualities if they are working correctly and you have a half decent service.

Pagers may provide one with voice mail and personal mailboxes.

Custom greeting when people call.

Pages the user when any one leaves a message.

Alphanumeric display allows numbers or words to be displayed.

Come in designer colors.

May be used with a security system to page the user upon activation of the alarm panel. For home business etc... Frees the end user from over charged and outrageous central station monthly charges and bills. ... Frees the end user from false charges from the police of false alarms or the failure of the police to even respond.

This is a great add on to any alarm system for the installer.

Remember to have a clause in your contract which frees you if you are the installer from any faults or miss-communications, etc...

Sharks & Snakes



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Match your page bill with your pages received, work, security release forms, work performed, etc,. You will be surprised.

Real-Estate Agencies And Their Agents

Real-estate agents always want you to be right there, right now, whenever they need you, but they are very very slow to pay. Be sure to be paid as soon as the bill incurred.

Be careful of people who call from an apartment complex or rental and would like to bill it to the real-estate agent.

No. Bad move.

Try to avoid third party billing.

The landlord did not authorize it and no one will pay you.

Have the party pay you and let the landlord reimburse them.

If it is as easy to get paid from the landlord as they say, let them do it.

Remote Order Entry

Remote Order Entry (Lock) - this phrase is used to describe the ordering methods utilized by some manufacturers distributors and manufacturers distributors distributor . The purchaser uses their computer to contact the distributors computer. After the handshake is made the purchaser has access to prices, stock availability etc... And places their order. This system and operation has a lot to be desired and the information very questionable. Numerous packages shipped from several locations with extremely high shipping costs is usually the rule. A poor means of ordering materials.

Case History:

We were using this type of ordering method from a Clark type distributor.

The stock would be shipped from all over the country.

We ordered 12 interchangeable core cylinders and other stock, they were shipped in this multi national manner. The shipping costs were staggering.

They were eventually paid for by the distributor after arguing with us about it long distance for several weeks.

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The same Clark type distributor never reimbursed us for returned merchandise totaling over \$300.00. They insisted that we had not purchased it from them, when we had indeed.

We never got the stock back or refunded !

The back order then may come back into play. You will receive a partial order and the slip shows that that item is back ordered. The purchaser has no way of knowing whether the item will come in tomorrow, next month or never. You can order from another manufacturers distributor but they have the minimum dollar order requirement and the other manufacturers distributor item may arrive at any time.

If you refuse the back order package and it is returned the manufacturers distributor does not like that and you are placed on their dirty list.

You may call and cancel. More time spent, back on the phone.

And even when canceled months later I have returned to my shop only to find someone has written a check for a six month old canceled manufacturers distributors item that they knew not what they were signing for.

Sales

A sale is actually an insult to an educated consumer.

If the store has an item for \$500.00 and they sell it on sale for half price (\$250.00) that is an insult.

The store must be making a profit at half price (\$250.00) or they would not survive.

If they are making a profit at half price, how much profit were they making at the full price?

So you can see it this may be construed as an insult.

I would suggest not having any sales, but just maintain steady prices at all times.

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Set Up Fee

This applies to machine shop work as well as for stationary. Usually there is a first time set up fee for setting up the equipment. A one time charge.

As in stationary or say for " t" shirts, the screen or art is retained by the company performing the work and when ever you run a batch they use the art and there is no setup fee, only the cost of the run itself.

However, should you decide to change the art or add to it you will again encounter a charge.

From what I understand, you actually own the artwork if you paid a set up fee for it.

You may request the return of your artwork at any time.

**YOU SHOULD SAVE ALL OF YOUR RECEIPTS AND RETAIN
A GOOD ATTORNEY
(IF YOU CAN FIND ONE WHOSE NOT A CROOK) Snake.**

Shipping and Receiving

Unless you can physically get to the sales counter you will have to rely on shipping and receiving.

You will need boxes, packing material, tape, Tape Gun labels, and a medium size black magic marker.

The tape should be of two types, the clear 3" wide and the brown 3" water activated.

The brown 3" packaging tape is cut to length and then the glue side dampened with water. The strip is applied directly to the box.

After the box is secured with the brown glue tape, the clear 3" tape is then applied to insure security.

There is security tape that may be added to the box. This tape will indicate tampering.

However, let us say an individual or company ships out a package. If this package is intercepted for what ever reasons, it may be opened examined and re-packaged and the recipient would never know.

They would have know way of knowing what the actual original packaging looked like.

It could be in a completely different box.

How would they know ?

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If you can purchase security tape so can the bad guys and gals. They would simply just re-package and re-apply some security tape.

Did you receive the package ? Yes.

Did it have security tape securing it ? Yes.

The united states postal service is very dishonest and unreliable when it comes to the mail.

You can go broke being nickled and dimed to death.

Stamps

You might consider using stamps "Paid" or "Past Due" when ever you send a bill .write the date down on each bill as you send it ,so that you may refer to it later if need be. You will be glad that you kept a record for billing purposes.

This would be written on a bill some where as you send each bill.
Written on the top of the bill and dated;

1st Billing, Date
2nd Billing, Date
3rd Billing, Date
Etc ...

Stamp in Red:
Past Due

Stickers

I strongly suggest the use of stickers.

A sticker with your name and phone number are a great way of advertising.

I usually place the sticker on every commercial door that I work on. I place them on every alarm panel and crash (fire egress) bar. I place them on residential windows as a sort of "do not tread on me" message.

Please do not let the story "stickers" in sharks & snakes scare you off from purchasing and using stickers.

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Sub-Contractors

Taxes

Save all receipts.
Any purchases made such as;
dinner, gas, tires, oil, printing, tape, stamps, etc... Any and all receipts should be saved and used as Tax deductions at the end of the year. The vehicle you purchase, office, people that you sub-contract to, book keeper, tax preparer, etc...
Your book keeper or tax preparer will assist you with the receipts.

See the section Book Keeper.

Telephone Answering Questions and Courtesy

When the phone rings, answer it pleasantly with a smile. When you do smile it may be heard in your voice. Try it. Say "Hello". Now say hello as you smile.

The client will tell you something about the key or lock. The questions I mention below are to cover different situations. It is up to you to ask the appropriate questions at the right time.

What does the key or lock do or what does it not do ?

Is it electronic or physical

Do you have a duplicate key ?

Are the keys in the trunk ?

Are they in the car ?

Can you see the keys ?

Do the keys go all the way into the ignition ?

Does the key turn the ignition ?

Do you have the key codes ?

Are you the original owner ?

Do you have both broken pieces ?

Has anyone tried to extract the key ?

Paper clips stuck down the key way ?

Has anyone tried to open the car ?

How many locks are on the door ?

Are both deadbolt and knob locked ?

If both deadbolt and knob are locked I ask, if the deadbolt is locked where are your keys if you locked the deadbolt ?

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They will ask you, how much do you charge ?
I would ask, what town are you in ? I would then have different rates for the distances that I was to travel.

If they ask what town are you in ? I always say I am completely mobile.

I would avoid their question and I would find out where they were first.

The reason I would use this method is that I charge certain service rates for certain towns. Just because I happen to be in their town at the time of the call does not warrant a price reduction.

You still have to travel back home. Plus time .

If you should have to put the client on hold, explain why you must put them on hold.

When you do put them on hold, do so for no longer then ten to fifteen seconds.

This should be just long enough to tell the new calling party that you must put them on hold and explain why, that you have another caller on the other line.

Go back to the original caller and continue. Remember do not leave any party on hold for more than fifteen seconds at a time. It takes great dexterity to juggle phone calls and not loose any.

U.P.S.

I never relied on u.p.s. For shipping packages out.

There always seemed to be complications and problems.

Many packages were shipped to the wrong addresses, either coming or going.

I have had special meetings with their white collars at my place of business only to have the problems continue.

I never could seem to get u.p.s. To pick up a package. I would have to take it thirty miles away because the town I was in was the last town in that district.

My town had over forty thousand people.

Even though the next town over was the largest town in the united states and had a u.p.s. Station. I could not pick up a package there. The u.p.s. Part timers make \$15 an hour and the full timers make \$30 an hour. And they strike and complain all the time.

The money \$\$\$ sounds good to me.

When u.p.s. Goes on strike they can get a job somewhere else, taking a job from you or i, and still be on strike.

Ups does not thrill me.

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Tennessee UPS

Case History:

5/4/2000

We had a break in at the local gravel pit here in madisonville tn.

Liz and I ordered special re-keyable padlocks and other things from mcdonald dash. And of course we paid for "special over night delivery".

The next day the package never came. We called and called and called, all to no avail. Liz called mcdonald dash. Liz called united postal service (ups). We did not get the package as usual as prommised.

I personally do not give a damn about the excuses. All I know is that I did not receive my righful goods as promised. Again.

I do not know what to do with my "emergency" type business operations. Liz must now call the client and tell them that we are not competant and that the order that we promised will not be here.

Etc, etc, etc.

I personally think that it all stinks.

Liz called ups after they did not return her call as promised five times. They informed her that the ups driver was forty miles away and that he could deliver the package at 4:00pm.

A little bit later than the prommised by 9:am delivery.

Yet I am still charged the "special rate". What a crock of bull shit.

I would suggest to not order anything by special over night delivery of anything. It simply does not work.

Take your time and prepare cautiously, methodically and logistically.

United Postal Service (UPS) and Federal Express

Look at all of the drug deals that Federal Express has been involved with. Currying marijuana, cocain, heroine and other drugs all over the world for the drug cartel.

Busted over and over again.

If that was you or i, we would have had our licenses and other permits taken away from us a long time ago.

They seem to get the drugs to the pushers over night yet fail to deliver needed security supplies as prommised.

Later that day after thirty telephone calls Liz was talking with a woman named Mary Cardin.

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Liz asked what was the corporate headquarters telephone number and the woman said that there was not a national UPS Headquarters. She informed us that Tennessee was it. If that is as good as it gets, I am scared for my life.

She insisted that we contact her supervisor and speak with him and on and on.

Somehow I was given the telephone and the woman was just "correct".

No matter what I said she was "correct". I told her that I had been using UPS for twenty years and that I have always encountered problems.

With that Mary said "I have been working for UPS for twenty five years". She would tell me this and that and I would explain to her that I still do not have my package at 2:45pm.

It was supposed to be delivered before 9:am. Well, our driver was there at 9:30 this morning she said.

I was here and besides I told her the bottom line is I still do not have my package.

The next thing I knew is I was talking to a Randy Breeding. Who ever he was.

He kept telling me what a great job that he was doing. I told Randy Breeding the bottom line is I still do not have my package. I also informed Randy that I was a journalist and wrote about all of my encounters.

His prattle continued. Again I said the bottom line is I still do not have my package.

Again Randy Breeding prattled and then told me to keep my voice down.

He was wrong and Randy Breeding knew that he and his companies incompetence were overwhelming.

He then tried to shift the blame, again, and commented that my voice was loud.

I was speaking in a normal calm voice and actually I was not upset at all.

I have been through it one thousand times over a twenty year period and frankly I could care less at this point. I thought that it was a great [Interview](#). Randy continued with more arrogant and self richous praise.

I then said to Randy that, I am an adult and what he had for dinner last night, or what the color of grass was, the bottom line is I still do not have my package.

Again he tried to move the problem in a different direction.

Randy breeding then said "I would appreciate it if you spoke to me as though I were an adult". I asked Randy what was he talking about?

I knew exactly what he was trying to do. Shift the blame as though I were wrong.

Which I was wrong for having used UPS in the first place. I do not have many options.

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Any way randy said "talking about dinner or the color of grass. I am an adult".

I reiterated several times the bottom line is I still do not have my package and asked what could "We" do about it. I could not have been any nicer, if I had been speaking to my own mother.

I could not seem to get that single point accross.

I commented that I am a journalist and that I wanted to get my facts straight.

I then asked the man if the facts were true that there was no UPS headquarters?

The telephone line went dead. Liz commented that she believed that my cellular tellephone went dead.

I did not believe it and checked the unit. The Battery was just fine. I then informed Liz that the man hung up on me in the middle of an interview.

I waited about twenty minutes for the "supervisor" to call me back. He never did.

I thought to myself if the man or woman thought that it was important to straighten out they would call me back directly. I know I would. If you told me several times that you were a journalist, and that you wrote about your contacts, eposodes and accounts and we lost our communication contact, I would most certainly re-establish contact with you.

I would want to make sure you had the facts straight and spelled my name correctly.

That's.... C l y m e r. With an "M" as in Mary.

I guess Liz finally called UPS back and the people at UPS went on and on.

I personally could not see why Liz kept calling everyone and conversing.

But then again that is why Liz is my assistant and the companies diplomatic relations department.

**It is hard to soar like an Eagle
When you fly with Turkeys**

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Our Alarm Wire from Systems Depot.

United Postal Service
James Kelly
55 Glenn Parkway North East
Atlanta, GA 30328
Phone: 404-828-3231 / Fax:

Stacy Crissenger 800-833-9943

7/10/01:
UPS did not leave the package as promised.

3/16/01:
UPS left Tag at our door will be by tomorrow. We waited all day ,
they never arrived.
4:15pm we called, they never called back.
We called back 4:24 disconnected.
We called 4:55pm Stacy Crissenger said that UPS still had twenty more
minutes in which to call us back and
that they would call. UPS never did. My alarm parts arrived at about
6:30pm.

Vehicles and a Mobile Operation

I have used a half dozen vehicles for my mobile locksmith operation.
My first vehicle was a Ford Ranger XLT Pickup Truck. It was fitted
with a special custom made insert between the truck and cap. I
purchased the truck new and always had front end problems. It was
very difficult to get the dealers to repair it under warranty.

The second vehicle to be used was a chevy cube van.

The last vehicle was a Dodge Mini Van. Caravan.

The Ford ranger xlt appeared in the Locksmith Ledger International
Magazine after it was blown up in a propane explosion. I wrote an
article and explained the dangers of using propane for heat in a
locksmith security vehicle.

The Ford ranger having no heat in the back cap area was very cold in
the winter.

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Case History:

I went to a local recreational vehicle dealer and had them install a propane heater in the back of the service vehicle. The fool neglected to put on a regulator to regulate the propane gas flow.

When I ignited the heater switch the entire back of the truck blew up.

I was blown clear out of the back of the truck.

I rolled on the ground and extinguished my flames that were burning my entire body.

I then went back into the flames of the truck to rescue the passenger who was still in the rear of the truck.

I reached in the back door through the flames and grabbed my fire extinguisher that was mounted right inside the back door and put out the fire.

I took my passenger out and called 911.

We both ended up in the hospital with second and third degree burns extensively on our face, legs and hands. Our medical treatments included De-Breeding. (peeling off the skin in excruciating pain).

Through much therapy and months in the hospital, we were released with bandages.

We are both very lucky that we are not terribly scarred.

Everyone used to laugh at my fire extinguishers mounted in and around the home, shop and vehicle.

They are no laughing matter.

A fire extinguisher and first aid kit are mandatory items and I would insist that you acquire them.

The Chevy Cube Van also worked very well as a service vehicle. It was very roomy and could carry a lot of stock.

However, the vehicle was very big and bulky and tough to maneuver in tight places.

Because of all the weight I carried, I had a lot of trouble with the leaf springs coming through the rear floor.

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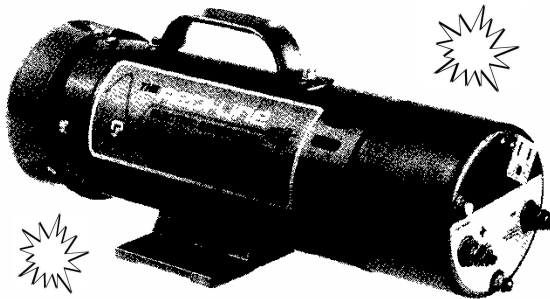
Generators

Redi-Line Generators

Converts DC 12 Volt to AC 120
Volts

This is the model that I have used for over seventeen years. It has withstood a fire and inclement weather. This is the generator that is worth it's weight in gold.

Small Key Machines, drills, and Lights. Run 12 AWG to a Deep Cell Marine Battery or a Plain Car Battery and you have 120 Volts Ac. Easy hook up. Built in Plug.



Computers

I strongly suggest a good data base for your computer. Complete back ups or some other method of storing your media is important. If you do not have a computer, you should try to get one.

I create all my own yellow page ads, flyers and more on my computer. Ideas, work to do, contacts, companies, inventory, personal use and clients on a data base are just a few ways that the computer may be utilized .

The person or company who has caused you grief in the past is hoping you forgot. No !

And when you tell them the facts of when, where and for how long, they hate you. They hate the truth.

I use a program for " windows." It is great !

Ford is a Poor Service Vehicle

Ford Does Not Produce What Is Actually Ordered

We ordered a Ford van from Royal Ford in Milford Massachusetts U.S.A. . The van was to be **black, no windows** at all and a **swinging side door**, not a slider. We knew that our present service vehicle (The Chevy Cube van) was slowly deteriorating so we planned ahead.

We would call about every two weeks to see if the Ford van came in yet. After waiting six months for the van the dealer finally told us that they had forgotten to order it. What they did do is, quote the wrong price and instead of being men or women and acting responsible and tell us so, they misled us for six months. Pretty sleazy.

Car dealers.

I had several other Ford dealers tell me that my van had come in. The vans were always white or blue, with windows and sliding doors. The dealers would insist this was the vehicle I ordered. That's Ford.

Ford Repair Service Is Poor

Ford says that it will repair any Ford at any dealer and this is **Not true**. I have driven several new Fords under warranty and none were ever repaired as stated. The Ford dealer would always tell me to take it back to where the vehicle was purchased. The dealers who did not sell you the vehicle would not service it. Ever. I would have to pay cash.

One Brand New Truck was purchased over one hundred miles away in New Hampshire. That Ford dealer was the only Ford dealer in New England who would work on it. The attitude was "You didn't spend your money here, so take it somewhere else."

Case History:

The custom made Ford van my mother purchased was okay and looked great except that Ford would not repair or service the brand new thirty thousand dollar (\$30,000.00) van although it was under warranty.

Even where she purchased it.

The radio which we ordered was not what we received and Ford made me pay another \$200.00 to replace it. I paid.

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I went to the same Ford dealer six times to replace the radio. The Ford dealer was sixty miles away. Each time I went they asked ME to disassemble the dash and remove the old radio my self. And each time I did the Ford dealer informed me that the radio which came in was the wrong one.

Fords Have Poor Front Ends And Are Not Ford Serviceable

Case History:

The Ford front end alignment was never right. The Ford dealer couldn't even lift the van on their lift. Nor could they align front ends on vans.

Only certain automobile service stations can lift a Ford van. The Ford van went through tires like butter. It was always out of alignment.

The Ford dealer told me to have the front end realigned somewhere else and that they would reimburse me. Ford never reimbursed me.

The Ford van windows never operated correctly. The passenger window never worked right and would be stuck down during down pours of rain and snow.

We returned to the Westborough Massachusetts U.S.A. Ford dealer over a dozen times. They could not fix it. They had me take it to glass dealers and other types of places. It was never repaired.

A Natick Massachusetts United States Ford Dealer Beat Elizabeth

9/18/95 Paul Hoffman Natick Massachusetts Attacks Liz.

Case History:

A Ford Dealer In Natick Massachusetts actually assaulted Liz, my assistant.

Liz had made several appointments to have the window fixed on our Brand New Custom Made \$30,000.00 Dollar Ford Vehicle at a Natick Ford dealer, and several times all to no avail. The window was stuck / broken in the down position. (Security breeched).

The van would be left for days at a time only to be returned with a "we could not get to it".

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The interior of the van was being ruined by the inclement weather.
A Custom Made Security Vehicle with a broken window track in the down position is ridiculous.

After her persistence and six appointments at this particular Ford dealer and other Ford dealers, the window was finally repaired.

The Ford dealer repaired the window, but when they put it back together they Broke Off The Arm Rest. Remember this is a thirty thousand dollar custom made vehicle. \$30,000.00

The Ford dealer and Liz were arguing about an appointment that the dealer (manufacturers distributor) had not kept again for the third time to fix the arm rest that the manufacturers distributor had broken.

Liz had parked the Ford van in front of the service bays and had been there since 6am. It was now 9am. The Ford dealer asked her to move the van and Liz said she would not. She wanted the Ford van fixed.

The Ford dealer slammed Liz (a Grand Mall Seizure Epileptic) against the wall and grabbed the keys out of her hand. While doing so the Key Ring, which was hooked by her finger ripped a finger nail in half with blood.

Liz called the Natick Massachusetts Police and the Natick Police arrived.

The Natick Massachusetts Police would not do a thing and told her to get off the Ford dealers property or they would arrest her for trespassing.

What would one expect them to say. The Natick Massachusetts Police drive Ford vehicles provided by this very manufacturers distributor Ford dealer.

Date and info on record. Our records.

Oh, by the way, the broken passenger window arm rest was never repaired.

Numerous Calls To Ford Headquarters

Case History:

We called and wrote letters all to no avail. The only response would be a letter selling more of their Ford vehicles.

I had so many problems with my Mothers Ford during purchase and trying to get it repaired that I personally would never, ever purchase a Ford Van again.

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I strongly suggest that you consider another manufacturer when purchasing a service vehicle.

The vehicles are a fair vehicle, BUT, if the warrenty will not honored, IF the Ford dealer will not work on it, WHEN the Ford Dealers assault the customer, it is time to purchase a different brand.

Anything would be better than a Ford.

The following is one of the actual letters sent to Ford.

8/14/95:

8/14/95: BILL PHILLIPS SALES MANAGER NATICK FORD / MR CULLINAN
SECOND OWNER / NATICK FAX 651-7883 //EDSEL FORD / DERBORN
MICHAGAN

NATICK FORD
157 WEST CENTRAL ST
NATICK, MA 01760
Phone 508-653-2550 /Fax

Dear CHARLES:

7/26/95:

Enclosed please find a print out of your companies history with us.
As you can see it is not very professional.

From the day we purchased our FORD Van, the passenger window did not operate correctly.

Ford attempted to fix it but could not find the time or place to perform the work.

Since they were not competent enough to do it, Ford sent us to international glass in WESTBORO

This too, was to no avail. They could not figure out what was wrong with it and told us to wait until it happened again. We did. The next time the window failed it started to rain. The glass man told us to call another day he was booked. And on and on.

Because this had turned into hundreds of hours of repair time, driving, waiting, labor and so on,

Ford finally told us to take the van to any mechanic of our choice and they would pay the repair cost. We took it to SHERBORN Auto Care. He repaired it and we sent the bill to Ford. It was never paid.

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Now at twenty six thousand mile the same window started to come of the track because of the window regulator.

We called NATICK Ford. And we called NATICK Ford, and we called NATICK Ford.

We have made appointment after appointment and each one has bee broken.

Appointments we were told, were never made.

We need a solution to this problem and soon. The vehicle is approaching 36,000 miles and thus the warranty is up.

In the mean time, I will have to understand that the last two times I sent my secretary at 7:30AM to 10:30am was for business, security reasons. the enclosed bill for our professional on site security.

You will also find a maintenance agreement. This is offered to the local businesses in the area as a professional courtesy. Try to take advantage of it.

We cannot tie up this vehicle, for obvious security reasons.

We have a handi capped eighty year old woman who actually owns this van and needs it for her transportation daily.

We find this type of behavior REPREHENSIBLE. Very Very unprofessional.

Please keep us informed of your intentions.

Sincerely,

John Clymer II

President of Intelligent Security Solutions, Inc.

12/27/95:

9/6/95: TOM / 1995 FORD TAURUS /

7/12/95:

6/29/95:

NEED TO BRING BY BEFORE WARRANTY IS UP , HAVE THEM WRITE UP AN INVOICE THEN SET UP APPOINTMENT TO GET IT FIXED.

6/29/95:

JOEY.DOES NOT HAVE US DOWN FOR APPOINTMENT TODAY. THEY ARE COMPLETLEY BOOKED UNTIL MID NEXT WEEK.

6/22/95: PAT / A COUPLE HOURS MINIMUM /

6/6/95: WINDOW REGULATOR NOT WORKING , AGAIN. DUDIE FORD DICK
ALTMAN

9/22/94: 3.0 LETER/ SUPER ENGINE COOL/

Types Of Work Vehicles

If You Purchase A Ford Vehicle You Will Be Sorry

General Motors and or Chrysler Are Your Best Buys

All of the vehicles were equipped with electricity using a generator.

The generator is powered by a twelve volt DC battery which converts the 12 volt DC juice to 120 volt AC.

A work bench is needed for your pinning kit and work area. A key machine or several of your choice are also mounted in back.

A key blank panel is needed and some drawers for stock.

Chevrolet Cube Truck

Dodge Mini Van

Now this was a sweet surprise. I never thought much of Dodge and or Plymouth. I went looking for a Mini type van. In 1997 I ran across a used 1993 Dodge Mini Caravan. I paid several mechanics twenty dollars each to assess the van. each said that as far as they could tell, the van appeared to be OK. No guarantees. Of course.

It is good on fuel and only has two problems;

Uses (not Burns) a little oil and it has a small transmission drip.

I can not carry all of the equipment that I used to carry or wish I could carry, but the front wheel drive vehicle is GREAT !

I could not say enough about the van here. I carry a small mechanics chest, a generator, extra 12 volt generator battery, Ratchet set, miscellaneous tools, 2 Key machines, a vice, six Key boards with over two hundred X Keys. Every Domestic Key you could think of, extra tools, tow chain, Metal tool bench, clothes and other extra equipment.

The van runs great.

I have replaced all of the tires once. And I replaced the old rear shock absorbers with the heaviest grade I could find.

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The Mini van is just fine for doing the work load that I carry now.

Although Harrison Electronics is Hell to do business with, I have a Hell Fire 400 Alarm System in it. I have included the automatic door lock module.

The vehicle is an automatic with fuel injection so I installed a C&A Remote Auto Start.

The following sequence of pictures will show you the ease of converting from a showy business vehicle to incognito in about twenty seconds.



The Aluminum Face Roof Sign is portable and effective.



When it is time to close up, simply bring the sign face down, and flip it over.

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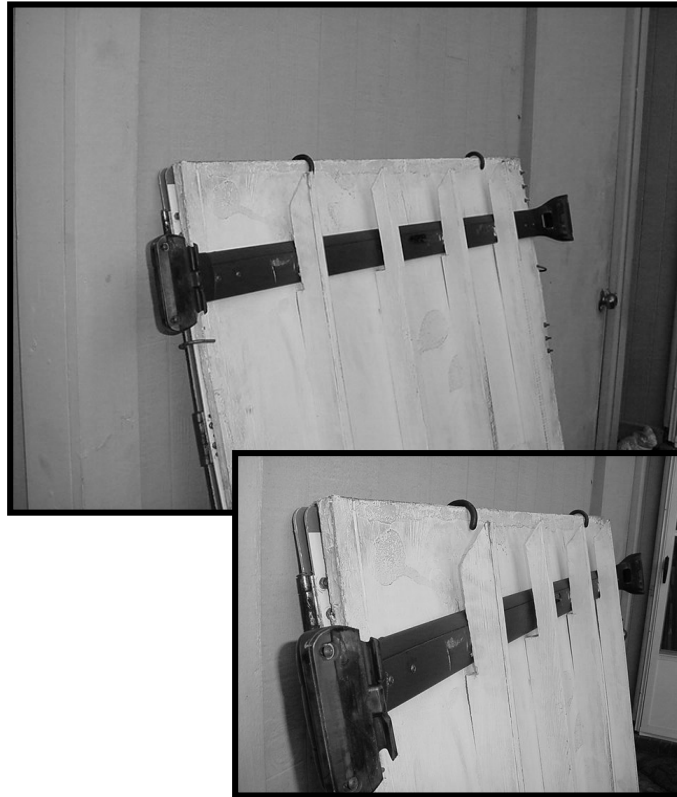
Two Bungy cords now hold the unit down
it's length. While I use several more
across it's width.



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The design allows me adjustment of the unit on the luggage racks as well as the racks themselves being removable.

The base is plywood and the runners are of strapping.



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A Look Inside A Working 1993 Dodge Mini Van

This Van was a working Van until Crystal Coast Auto got their hands onto it.

December 2001

This is a simple interior which affords us to take the specific tools we need for a particular job.

It cuts down on all of the weight the Mini Van is Carrying.

It is sometimes an inconvenience to not have a specific tool and have to return to the shop, however I am trying to slow my self down a bit and have chosen to return to the shop for tools as needed.



I always carry my tool box. My flat Automotive Tool Box may be seen to the right. A MACHINIST CHEST, Key Machine, and First Aid Kit are visible as well as my Black Suit case containing my Vehicle Opening Tools.





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International 20' Box Truck

Sales people in general

Never say you are not purchasing to day.

My name clymavey, klinger, klimber etc...
Intl soluts

Calling cards / size, and color

Payroll and your employees

Price sheets
Requesting them25

Scott the crook

I called the State of Tennessee and requested information on
Locksmith Licensing. I went through the same eposode that I wrote
about in Security Systems.
Any way after calling the State and traying to find out if there was
a license I could purchase that would allow me to travel to different
counties and cut keys. No one kenw anything about any such licensing
and I was informed that I would have to purchase a three hundred
dollar permit in each Tennesse county.
WE CALLED THE STATE OF TENNESSEE FOR PERMITS AND THERE RELLY WAS
NONE FOR LOCKSMITHS EXCEPT IN THE Tennessee COUNTY WHERE ONE WAS
FROM. WE WENT DOWN TOWN MADDISONVILLE AND ACQUIRED A BUSINESS PERMIT.
I BET ALL OF THE POLICE, OPENING VEHICLES, DON'T HAVE ONE

5/4/2000 used in office ops.
The town of Madisonville Monroe County Tennessee sent me a bill.
The Bill was for my businesses taxable items. The; Copy Machine,
Computer, Fax Machine, Shrink Wrap Machine, etc...
All right?
The Madisonville Monroe County Tennessee Business License which I
purchased so that I could be "Officially In Business" never did me
any good except set me up so that I could be sent a TAX bill. It did
not keep the police from opening vehicles.

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The police did not have to acquire a Business License. The other "Locksmiths" practicing Locksmithing do not have the "License".

So what good was it for me to have acquired one? Oh, I see. Other wise the "Damn Yankee" woodnt be licensed and is break'n tha lor.

I guarentee the "Pink Panther" on this date does not have a Business License, yet he worked for the police department (He knows BETTER) and at the date of this writting is "Opening Vehicles" in Monroe County Tennessee. He has flyers all over town.

Sloan Center, The Tobacco shop etc., all sport his flyers while at the same time removing my calling card from the bulleten board.

"BACK WARD".

I will eventually leave town and take my commerse elsewhere.

I do not care if there are other Locksmiths around me or not.

Each Locksmith is as good as they are. And I am as good or bad as I am. I have been Locksmithing at the time of this writting approximately 17 years. I personally do not think that the "Pink Panther" has that experience. Nor do I think that he will very soon work on a; Masserati, Ferarri, Have One Hundred Clients on Line, Secured Bomb Threat Areas, Install Electric Strikes for Cash rooms, Bid thirty thousand dollar bids for hospitals etc, in the very near future.

I can obviously perform work that he can not do.

But the people will run me out of town despite the facts.

Free 911, No Licensing, No Telephone Advertising, no anything. Only Nasty Attitudes.

Everyone looses.

I will not be passing out my cards as much as I should. Therefore the printer will not be printing me as many. I will not be going on as many road calls. So I will be purchasing less fuels, batteries, and accessories, Clothes, Shoes, etc...

I can not go to Sweetwater without being harrassed.

I eventually will leave town as do most businesses around here. The Dollar Store, Two Pool Rooms, Clothing Store, Fish Market and more. Have all opened and closed their doors within a years time. Why ?

The people here will only support "Family", "Their Own", "KIN".

The income, honesty, Positive Ethics© and commerce do not mean a thing to these people.

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Liz went down to the Madisonville Monroe County Tennessee Clerks office today with or business tax papers. These are the same papers for which we keep getting Taxed on. The License for business we previously acquired was useless. All it did was Register us so that we could be taxed.

There are no other persons licensed in this town that I know of.

Liz said we had a choice to pay another \$20 and get a new license for the year or pay \$5 to resign. \$5 charge not to get a license!

I was thinking I would pay the \$5.00 so as NOT to be taxed.

\$20 to be taxed or five bucks not to be taxed. That is the question.

And so I say, What a bunch of crooks.

Locksmith Run A Round and Back Stabs

Terrance Ferguson 4/1/01 DJ Shooters Atalantic Beach 2:AM

Saturday night 5/5/01 Nikerah Burley called us from 252-633-1393 to come out to New Bern North carolina and open her 1994 Infinity G20. It was 11:30Pm and the vehicule was running. We quoted her \$68.00 and \$18.00.

We asked several times if she really needed us to come out and each time she replied yes. At \$2.00 per gallon for gas we did not want to be running around at Midnight. We headed out to 4011 Copperfield Drive Apt 118 in New Bern.

The woman was not there. Infact nothing even existed. When we called her she informed us that her father was a Locksmith and he told her that our prices were outrageous and that they had called Coastal Locksmith from Havelock at 447-7233 to come out. Coastal had told her that We were ripping her off and that they would respond for \$35. We asked well, then why didn't you call us and cancel? She said that Coastal Lock said that they would call us for her and that when she called Coastal Lock back she was informed that the cancelation call had been made.

We never did see any of the 4011 Copperfield Drive Apt 118 in New Bern nor the Infinity.

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On Monday morning 5/7/01 I called Coastal and asked to speak to the owner. He was busy and would call me back. When the owner called back he said "Yeah, what do you want"? I explained about our fiasco running around the state and he denied having any thing to do with it.

5/9/01 9PM We received a call from a Bennett 252-636-9551 from Harkers Island.

He was trying to reach Irene at Intelligent Security Solutions. We informed him that there was no Irene.

He was interested in an Alarm System. He said that he had a One Hundred and Forty Eight Foot Yacht that he needed secured. Well anyway, after about forty minutes of conversation an appointment was set for Friday 5/11/01 at 11:00AM. Liz and I drove out on Friday the Sixty miles to meet Bennett. The Marina and the man did not exist. The number 252-636-9551 was the number of a boat painter in NewBern North Carolina.

Ron at Ottis Sea Food or Coastal Lock screwing us again.

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Be sure to purchase and or acquire a Running Copy of the News Paper, Flyer or Telephone book you have run the advertisement in.

Sales. Look directly into the persons eyes. Address the women also.

Foreclosure

Get a copy of the appropriate paper work.

Safes and Safe Persons:

The Safe Field is an occupation unto itself. An entire lifetime or more could be devoted to this field.

I personally know my limitations and call a safe person when needed. I will simply sub out the work.

Usually a courtesy discount is given to you being a brother or sister in security. Usually you are billed directly by the [Safe Person](#) and you then submit your own bill to the store.

Mileage is sometimes billed by the Safe Person or not.

Usually most Safe Persons with whom I have dealt with have all been very nice to work with.

Every Safe Person has been professional, courteous, and has performed their work as one would expect.

Thank you to the Safe Persons.

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When going to a woman's house or residence one should be extra careful to guard against rape charges.

One time in the Ugly Houses in south Natick I opened a bathroom with a woman inside. The door lock was broken and I needed to pass small tools underneath the door for the wife to use. I gave her instructions through the door.

When I was finished the husband refused to pay saying "My wife did all of the work". A \$500,000 dollar home.

The same thing happened at the Koala Inn on rt 9 Framingham. With the college students.

Hiring Help

Saturday, March 08, 2003

Liz and I have been running advertisements in the New Bern Sun Journal. If ten people made appointments in order to get directions for our application, only half show up at the designated time.

The economy is bad. We are going to go to war with Saddam Housein in ten days so we decided to put at least one person to work.

Friday was Beth's day away from the car lot. We were going to see several people in the morning and then go get my hair cut. No one showed all morning. It put us both in a foul mood which postponed our lunch and hair cut for another day.

Phoenix just about pleaded with Liz to give her a Saturday appointmat. Liz had stated she did not give applications ion Saturday. Phoenix stated how she was an office manager and wished a change. Liz finnaly said all right. 10:00AM? No. Phoenix could not be here until 11:00AM.

Liz and I had been arguing and wished we had a little alone time. Liz was late to show at the car lot for 10:00AM.

Phoenix never showed on Saturday at 11:00AM or any other time for that matter.

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Employee Application

This is a copy of the first application.

The American Security Academy

P.O. Box 707
Havelock NC, 28532
Telephone 1-252-463-3455
Job Application

For Office Use Only

Please check all boxes that apply and please print clearly. Thank
you.

Who Are You? Tell Us About You.

Today's Date: Month _____ / Day _____ / Year _____ Your

Age _____ Birth Date ____ / ____ / ____

Social Security number _____ Yes []
you have a valid drivers license?.....

Your height ____ Your weight ____ Hair color ____ Eye color Yes []
Do you wear glasses or contacts?.....

Where Do You Live?

Please Print Your Current Address.

Name (_____
Print)_____

Address_____

City _____ State _____
Country _____ Zip code _____

Mailing / Shipping address if different than above

How long have you lived at this address? _____ Year (s)

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Your Day Time Telephone Number. Please include Area or Country Code

Your Evening Telephone number Please include Area or Country Code

The best time to reach you AM/PM, please include "Your Time Zone"

=====

Female ☐ Male ☐ Are you Yes ☐ State
citizen?..... Married...☐
Single...☐

Are you in the Milit; Yes ☐ Yes ☐ a
Husband or Wife in thē military?.....

Has a court demanded you pay child support through a Chil Yes ☐
Program.....

Have you ever filed for Yes ☐
bankruptcy?.....
.....

Have you ever been Yes ☐
bonded?.....
.....

Have you ever been convicted of a felony?..... Yes ☐ ..

If yes please explain: Please use additional pages if Yes ☐
necessary.....

Do you have any disabilities?..... Yes ☐ No ☐ If yes,
please explain: Please use additional paper if necessary.

Are you under a Doctors supervision?....Yes ☐ No ☐

Have you ever been treated for alcohol or drug use?
..... Yes ☐ No ☐ Prefer Not to Say ☐

If so where and for what? Please use additional pages if necessary

Highest grade completed in school _____ Name of
the high school _____

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Post Graduate _____ College _____
Degree _____

Please list college courses studied.

Do you speak _____ Yes []
English?.....
...

What languages do you speak, read, write? List all that apply:
Please use additional paper if necessary.

Have you ever been involved in the:

Security Industry.	Yes [] No []	..Security....	Yes [] No []
Locksmithing.....	Willing to try [ ]	.....	Willing to try []
Automobile	Yes [] No []	Private	
openings.....	Willing to try []	Eye.....	Yes [] No []
Picking	Yes [] No [ ]	.....	Willing to try []
Locks.....	Willing to try []	Security Conferences.....	
Police.....	Yes [] No [ ]	.....
	Willing to try [ ]	.....

Do you have any friends and or family members who are presently
employed or helping in the Locksmith and or Security Industry?
If Yes, Please Explain:

=====

Things you can do

Can you use a	Yes [] No []
computer?.....	Willing to try []
.....	Yes [] No []
Can you work in a windows	Willing to try []
environment?.....	Yes [] No []
.....	Willing to try []
Can you work in the XP windows	Yes [] No []
environment?.....	Willing to try []
.....	Yes [] No []

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Do you know how to "push and pull" word documents?.....
.....

Have you ever worked with a web page builder?.....
.....

Would you like to be a licensed locksmith?.....
.....

Have you ever sold goods as a sales merchant or telemarketer?.....

Would you be willing to work outside the office on field projects?.....
.....

Are you willing to relocate?..... Yes []
..... Yes []
.....

Would you travel outside the United States?.....

Are you willing to sign a "Secrecy Disclosure" with Yes [] can Security Academy?.....

Would you allow us to perform a back ground investig Yes [] yourself?.....

Would you allow us to perform a credit check on Yes [] yourself?.....
.....

Are you a felon in this country or in any Yes [] country?.....

Please include any information which would aid in our evaluation of you. Hobbies, Accomplishments, Strengths, etc.

About Your Character

Please list three character references who we may contact. Please do not use family members or people who live with you.

*Name _____
Address _____

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Telephone number _____ How do you know
this person?_____

How long have you known this person?_____

*Name_____

Address_____

Telephone number _____ How do you know
this person?_____

How long have you known this person?_____

*Name_____

Address_____

Telephone number _____ How do you know
this person?_____

How long have you known this person?_____

=====

What would you like?

What salary or rate of pay do you require? \$_____

Are you seeking Full Time or Part Time
employment?_____

How many hours would you like to work per week?_____

Please state here how you believe you could help this business.

—

—

—

—

—

—

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I hereby attest the information I have provided is true to the best of my knowledge.

Name (Sign) _____ Date _____

For Office Use Only

Sales

Tera, July 19, 2002 9:40 PM

John and I collected the materials from Tera last night, Thursday, July 18th, 2002 at around 8:00n P.M.. John picked Liz up from the car lot and we headed to the Eggebrecht's house. We arrived unannounced as we wanted to ensure the collection of our property. Jon and Tera were eating dinner (hamburgers and potato tots). They were surprised to see us.

We sat with them while they finished their dinner. Tera told Liz she got her message around 4:30 P.M. She had forgotten the 10:00 appointment that morning she said smiling. John said to Tera, "Liz had taken the day off from work for this appointment and she decided to go in around twelve when you did not show. We were just wondering what happened to you."

Liz replied, "Yes, we have that show I was telling you about, and I needed to collect the materials and stock so I could inventory it for the show. I needed to see what I had to work with."

We sat for awhile with Tera and Jon and had small talk. The two dogs (Shelby and Daisy) were laying on the floor. We talked about the upcoming car show briefly. When they finished eating Tera started some laundry and Jon turned his computer on. Liz and Tera were talking in the kitchen about the upcoming car show. Jon and John were in the living room talking while Jon was on the computer checking his e-mail. Gradually John came in the kitchen and plans for the car show were firmed up. Tera was to come to the office on Friday July 29th, 2002 at 10:00 A.M.

Tera had pulled the white box of materials from under the computer console and placed them by the coach. Liz and John had lent her a white computer paper box with Locksmith/Security materials in it for Tera to sell.

As we said our goodnights Tera said aloud, "Here is the materials I have. Everything you have given me is in here." Liz and Tera should have consulted the sign in and sign out list of all materials Tera had taken with her to sell. Neither one did regretfully.

John took the box from Liz, the two of them chatted briefly with Tera and Jon then left. Once outside, Liz and John talked briefly with Jon about rental rates in the area (New Bern) as well as Havelock. Tera called Jon from inside the house and John and Liz said goodnight and Jon went in the house as Liz and John got into their van and left.

Friday July 19, 2002

John and Liz went through the box Friday evening and checked the contents against the sign out list. There were several items missing. Out of the Quick Pick Pack set, one Basic Lock I, one Deadbolt Installation CD/compact disc, one emergency pick set were missing.

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- The black notebook with A.S.A. release forms, spare paper, I.S.S. sales slips, credit card charge slips, etc. was missing.
- One emergency pick set that belongs with the Mini JC Quick Pick Pack that we had in the box
- One complete Mini JC Quick Pick / three pages of basic lock and picking a lock instructions

John directed Liz to call Tera right away to make her aware of the missing materials and products. It was about 8:00 P.M. Liz called the Eggebrecht house and Jon answered. Liz thought Tera was at work as she had taken a job at her neighbor's gas station as a cashier. Liz asked if Jon had a moment he said sure. Liz then asked was Tera home? He said yes. Liz responded and asked, "May I speak with her please?" He replied, "Yeah, one moment."

Tera came on the telephone and said, "Hello?" Liz replied, "Hi Tera its Beth. How are you? Are you catching up on your rest?" Tera said, "No not really, not yet." Liz said, "Oh. The reason for my call is that John and I were going through the box that was returned to us from you and there were a few items which were on the sign out list, but are missing from the box." Tera asked, "Like what?" Liz replied, "Some pick sets, the Deadbolt CD and some other things. Do you have a pen and paper to write them down?" Tera huffed into the telephone and called for Jon to get her a pen and paper. A few minutes of silence lapsed, then Tera said, "Okay go ahead."

Liz (Not in this order) said out of the three Mini JC's Quick Pick pack we had one complete set with the professional pick set, one with just the material minus the emergency pick set, and one complete set missing. Liz paused for Tera to catch up. Tera said in a monotone voice, "One of those sets you wanted me to try out on Jon and see if what he thought of it." Liz said "Yes, it is not in the box." Then Tera had said the only other time the materials were out of the box was when she was showing them to a possible client (a Marine friend named Eddy). "The stuff was strewn all over the coffee table."

In fact she had called us that night (a few weeks prior to the incident of missing materials) when he was at her house interested in John's Locksmith program asking prices on items. Tera told Liz over the telephone that evening, "You should see them all over the house trying to pick locks. One is at the front door the other is at the back door." Others meaning Jon her husband and Eddy the potential client. Tera told Liz they had watched John's video on Circumventing Locks and they thought it was really good. Now if Tera was drinking like she had on the fourth of July, no wonder there were items missing.

There was complete silence on the telephone.

John was in the background suggesting places where she may have left the black notebook (at a sales stop, in her truck, etc.). Then he suggested someone may have stolen the items without her knowing. Tera said the only place the box has been is in her truck and the

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house. When it was in the truck, the truck always's remained locked. Tera had a good habit of keeping her vehicle locked at all times. Liz moved on to the rest of the list. "There was no black notebook in the box. It had the I.S.S. invoices in there, the green A.S.A. release forms, spare paper, credit card charge slips, and some other things." Tera replied, "That's not in the box?" Liz, "No." Tera, "Are you sure?" Liz, "I am looking into the box right now and it is not in there." More huffing on the other end of the telephone. Liz pushed on. This was not easy. In fact it was very uncomfortable. Liz then explained about the other Quick Pick Pack that was on the sign out list. Included in this set was one picking video, one Basic Lock Manual, One Pick Set, and one Bonus Deadbolt CD. Out of this set I had the Picking Video and that was it. One Basic Lock, one Emergency Pick Set, one Deadbolt CD were missing. Tere replied, "I thought I returned the CD and a Basic Lock to you?" Liz, "No there not here." Tera, "I returned them around the time when you and John were having Basic Lock printed at the printers. You were doing something with Basic Lock. Having it broken into groups or something." Liz, "Yes, we had that done, but I still do not have those materials and you signed them out." Tera then asked Liz, "Well is it written in pencil??" Liz knew what Tera was getting at, but remained calm and bounced the insult off. "Everything is written in ink Tera." Nothing from the other end of the telephone. Then, Tera asked angrily, "Is there anything else?" Liz said, "No." Tera replied, Tera hung up the telephone abruptly without saying a word. Tera called back ten minutes later very angry. She had only found the Mini Quick Pick Pack with the Emergency Pick Set in it. She stated angrily, "I do not appreciate being called a thief. Maybe you and John are trying to get money from me."

Liz replied clearly, "No one is calling you a thief. I have not brought up money once in this conversation. There are materials / product missing and we just wanted to know what happened to them. We are all adults here. We just want to rectify the situation. This is our livelihood. It means a great deal to us." Then Tera asked Liz, "How would you feel in my situation? Wouldn't you want to do everything you could to rectify the situation?" Liz thought on this for a moment thinking carefully, "Of course I would Tera." Tera replied, "First thing I should have done was to check out the materials / products with you before you left last night." Liz nodded in silent agreement and said, "We should have done that." Silence ensued for a few minutes on the telephone. There were no arrangements made to pick up the materials she had found. Liz said to keep an eye out for the rest of the product / materials and let us know if she finds them. "I have to be to work in an hour. I will rip the house apart again to look for the stuff."

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Saturday, July 27, 2002

Liz woke up at 7:00 A.M., her usual time when she was to work at the car lot. I went downstairs, shut the alarm off and opened the front door for fresh air. I then went about putting the coffee on and began making my oatmeal. The coffee was perking and Liz had just put her brown sugar on her oatmeal and was about ready to sit and have breakfast, when I heard a noise. Liz saw Cleo the cat jump up and run up the stairs (he lays on the floor every morning watching Liz put together coffee and oatmeal). I did not think anything unusual of this as Cleo is Cleo, but then I heard a faint rap rap and realized it was someone at the front door. I thought it was my neighbor Beverly. She frequents the apartment with questions and asking to borrow things. Still half asleep, I peeked around the door in my tee shirt and there was Tera Eggebrecht in the doorway sipping on her coffee. I stated, "You're an early bird this morning." Tera replied, " Well yeah Jon had PT practice on base early and I wanted to drop this off." She was holding a white plastic shopping bag in her hand. Still talking from behind the door with my head exposed, I invited her in trying to be civil. She said she had to shut her vehicle off, she would be right back. I dashed upstairs and put a pair of shorts on and told John Tera was here. He told me not to get rid of her he did not want her in the house.

As I was coming down the stairs Tera was letting herself in the door. She helped herself and sat in Johns' chair with her coffee. She laid the white bag on the table and looked around. She had three of these bags inside one another and tied a ridiculously tight knot in it where I had to cut open the bag. Tera stated, "I did it like that because I was just going to leave them at your door."

Please realize the day before we had water up to our door at the apartment complex. There was severe flooding.

Liz cut open the bag with a pair of scissors after unsuccessfully attempting to untie Tera's knot. I pulled out the black notebook from the bags as well as the remaining missing materials and products.

Tera stated, "I found them in the back of Jon's truck under the seat." I was thinking to myself, but did not say anything, what were these doing in Jon's truck? He drives that vehicle daily to the marine base. You take it from there. These items look as though they had been under a seat in an old truck for a while. Jons' truck was a 1970's model truck, not a newer truck. Not that this made any difference. The materials were put in the hands of Tera and she was to be responsible for them once they left the office. I had made this clear to her. She had a responsibility to protect these materials.

The Deadbolt Install CD was in her package, the case was cracked, the CD scratched and had finger prints all over it. The pick sets were basically in the same condition. The reading materials were dog eared and wrinkled, the notebook had sand inside the vinyl outside cover, etc.

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I checked the items from the original sign out sheet, was satisfied with the items were brought back (not happy with the condition, but I was certainly not about to discuss it with Tera. It would have turned into a debate and I did not want this.)

Once I gave the once over to everything, I said, "Okay, I guess we are all set. Thanks for dropping these by." Tera stood up to leave as Liz handled the CD and saw it was cracked so she made a note to Tera, "This CD case is cracked." Tera replied, "Well I don't know about that." Liz responded with a casual hand gesture, " We will take care of it." Tera sipped her coffee and walked out the door. Liz told her to have a good day.

Tera had actually considered leaving the security materials outside a dwelling with the chance of someone stealing. This once again shows her irresponsibility. She did knock on the door however to hand it to someone, but what would she have done if the door was not open??? Probably fall back into her irresponsible pattern of doing things and left the package outside to mildew and be stolen

Commercial Door Lock Assemblies

Aluminum Store Front Doors

Mortise Cylinders

Mortise Cylinders may be used with Mortise Lock Sets.

Mortise Cylinders are commonly found in more commercial applications than residential applications.

Mortise Cylinders are the type of Lock that you see on Aluminum Store Front Doors and are used extensively on Aluminum Store Front Doors.

Mortise Cylinders are quite common around municipals, commercial and institutional facilities.

You may find this type of Lock in old residential installations with Mortise Lock Sets.

This is usually a square type assembly, which is installed by Mortising out the Door Edge and sliding the unit in from the door edge.

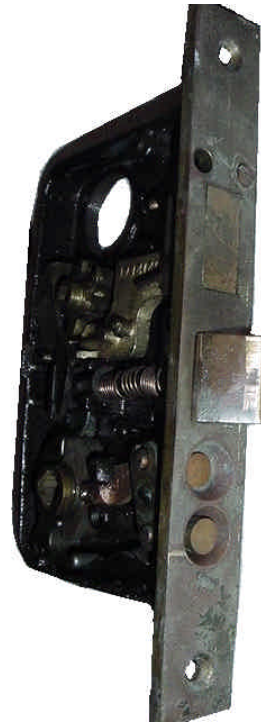
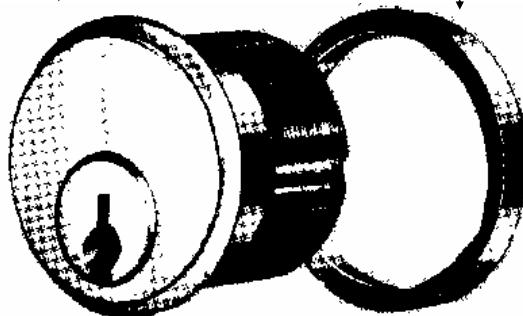
This was a standard type of Lockset years gone by.

Mortise Cylinders working with today's standards are installed with; Spring Latch, Swing Latch and Hook Latch Assemblies.

The Aluminum Store Front Door is a perfect example of a Mortise Cylinder and Latch Assembly.

Mortise Cylinder

Expansion Ring



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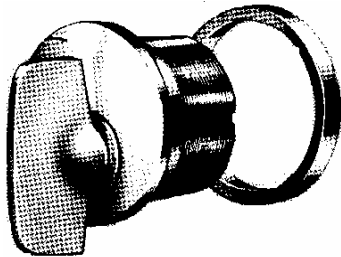
The Mortise Cylinder may be found quite often using the Basic Lock 5 or Six Pin system.

Mortise Cylinders utilize many Key configurations and different degrees of Keying Security. They may utilize U Change It style Key, IC Core Key, Tubular Key, Rod Key etc... The big pizza places, chicken places etc., Utilize IC Mortise Cylinders.

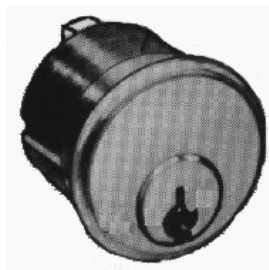
In order to remove the Mortise Cylinder from the Latch Assembly and door for servicing we will first have to remove several parts.

The first part will be the Face Plate or Cover Trim on the edge of the door. Then we will loosen the Mortise Cylinder Set Screws and last the Mortise Cylinder(s) itself. The entire process takes less than two minutes to have the Mortise Cylinders in hand. That is of course if everything goes correctly.

Thumb Turn
Mortise Cylinder



Mortise Cylinder



The Keyed Mortise Cylinder is recommended on the inside of the door when one wishes to secure the door in order to count cash.

The two Mortise Cylinders are usually Keyed Alike (KA). The Thumb Turn Mortise Cylinder is used in place of a Keyed Mortise Cylinder on the inside of the door, where one does not wish to use a Key. Fire should always be a major concern when installing any double cylinders, and the door Locked by Key on the inside should never be Locked with patrons in the store. The AHJ (Authority Having Jurisdiction) should be checked when working with commercial applications. A Double Cylinder Deadbolt should utilize careful consideration before installing. See the Knobs and Deadbolts Section of the MLSES©.

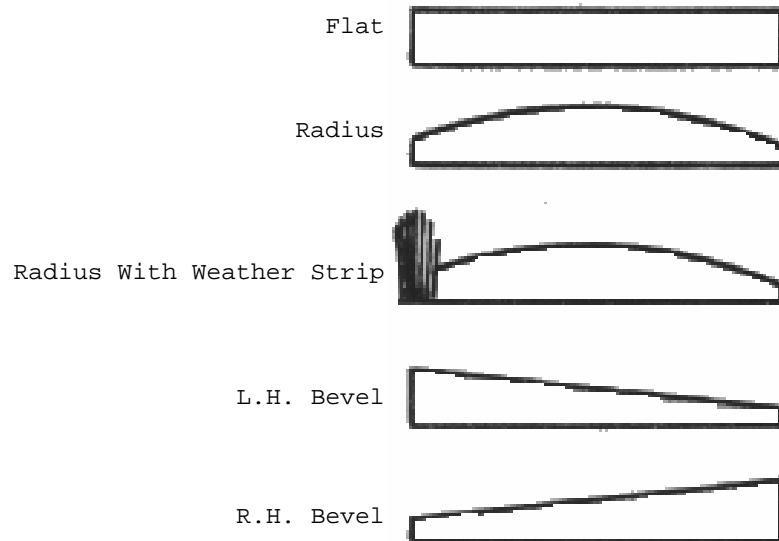
Mortise Cylinder Face Plate Aesthetics

Some companies stamp their name on the front of the Cylinder and others do not. I personally do not like any name stamped on the Lock Face of my Locks and ask for "No Name" on the Lock Face of Mortise Cylinders. Schlage (brand) does have a name. Yale (brand) does also. Lori (brand) has no name and it looks clean, neat and smooth.

Mortise Latch Assembly Face Plates

The entire Latch Assembly and Mortise Cylinder may be removed from the Aluminum Store Front Door at the Door Edge. Usually, there are three or sometimes two screws at the Door Edge holding on the Latch assemblies Cover Plate or Face Plate. There are different types of radius Face Plates most made of extruded aluminum. Usually, the correct radius Face Plate is already mounted on the door and the Face Plate will only fit back on properly one way.

We are looking at a Cross Section of the Face Plate.



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Tamper Proof Screws and Face Plates

Tamper Proof Screws Come In Many Styles and Variations

I have found Tamper Proof Screws installed in place of the normal mounting hardware holding on the Face Plate.

The reason for this is:

The installing locksmith was afraid of another locksmith taking over "their Client". So they install fancy Tamper Proof Screws. They expect that the inferior Locksmith will not be able to complete the job and the owner/Client will call the previous Locksmith back.

The incompetent Tamper Proof Screw installing Locksmith was afraid of loosing their Client to a Locksmith who is competent and more able.

And they did.

Removing the Tamper Proof Screws

The Tamper Proof Screws are very easy to remove. Simply use a Small Metal Chisel and a Small Ball Peen Hammer. Set the chisel on the edge of the screw and tap firmly enough so as to bite the screw and gently tap the rim of the Tamper Proof Screw in a Counter Clockwise direction. Tap lightly but firmly. The Tamper Proof Screws will come out.

Do not butcher the door.

Just simply tap, tap, tap, out the Tamper Proof Screws.

When the screw is out far enough, grab it with a pair of Vice (brand) grips and finish removing it if need be.

It takes a whole of two minutes per screw.

The screws that hold on the cover plate on the door edge, if missing or damaged may be replaced with regular Knob or Deadbolt Strike Plate Mounting Screws.

Tamper Proof Screws Come In Many Styles and Variations

Tamper Proof Screws and the appropriate Drivers which set and remove the tamper screws come in many different sizes and shapes. Tamper Proof Screws may be seen in rest Rooms securing the Stall Cubicles together. This type of Tamper Proof Screw may only be inserted and not removed, supposedly.

Yet, they can be removed with my chisel and Tap, Tap, Tap, method.

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The Tamper Proof Screw is used in prison applications, on Security System Control Panels and many other applications. Anywhere a degree of higher Security is desired. I use this type of screw when I secure Security System Control Panels. I chose a Phillips Type Screw with a Male "NIB" type protrusion in the center.

The Matching Driver has Female hole located in the tip of the Phillips Type Screw Driver in order to accept the Male protrusion. A "normal" Phillips type screw driver will not work.

Case History Investigation:

I was once going to use Tamper Proof Screws for the Mortise Cylinder Set Screws. I believed that this would really mess up the incompetent Locksmiths. I searched and through my investigation found that the screws were too small to be made in Tamper Proof versions.

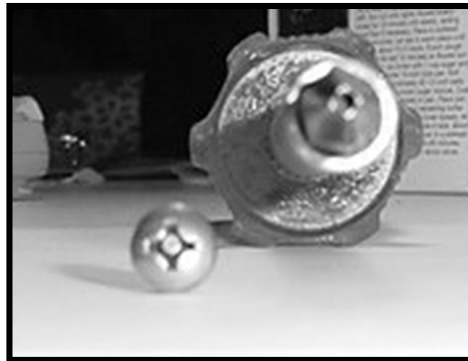
Oh well. So much for a good laugh.

Security Screw Drivers and Tamper Proof Screws

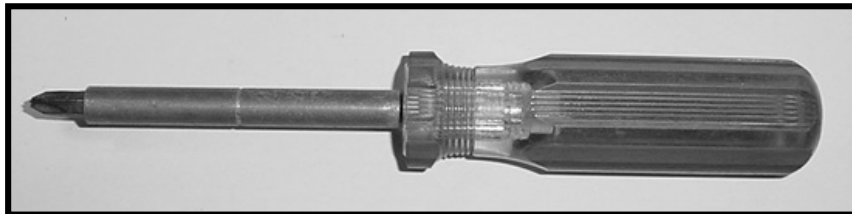
This offers a higher degree of Security when installing screws.

The Phillips screw has been fitted with a little insert into the center of the Phillips slot. A regular Phillips Screw Driver will not fit.

However, a Phillips Screw Driver with a hole drilled directly in the center of the drivers tip allows the extraction or insertion of the special tamper proof screw.



It appears to look like a regular screw driver.



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Many configurations of Tamper Proof fasteners and applicators are available.

Toilet Partitions in public rest rooms are a perfect example to show when examining Tamper Proof Screws.

Two different types may be seen here.



This is another toilet stall utilizing Tamper Proof screws. Hexagon, octagon, etc...



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Let's continue with our Mortise Cylinder removal.

The Face Plate is now removed and the Latch Assembly face may be seen at the Door Edge. There are two small Flat head or Allen Screws which are threaded into the inside set holes of the Mortise Cylinder, thus retaining the Mortise Cylinders. A miniature screw driver is used or the correct size Allen wrench in order to remove the set screws.

These screws when loosened, will allow the Mortise Cylinder to be threaded or unthreaded out of the assembly.

Try not to remove the screws completely.

Sometimes I have found that extra long screws were required and these custom made "Long" miniature screws I would make.

Case History:

I purchased the correct size threaded rod and nut at the hardware store. I then would thread a nut of the correct size, onto the rod stopping the nut a little bit short of my desired length. With a Hack Saw, I would then cut my desired length off of the rod including the nut. The nut is then threaded off of the rod piece thus truing up the threads. A miniature Die so to speak.

I would then re-thread the nut back onto the cutting stock and I would repeat the procedure. Cut off a dozen off the desired longer lengths ahead of time. I then would take each piece and clamp it vertical, gently in vice. Using the Hacksaw I would then cut a "Slice" into the top of each of the little rods thus making custom made "Long" miniature screws.

I called and wrote Adams Rite at least fifty times in California and they never knew what I was talking about. They sent me hooks and catches and other useless articles, over and over again.

You must only rely in yourself.

Aluminum Doors That Scrape

Tip: Aluminum Doors That Scrape

Usually this indicates that the building has settled and there may not be much you can do to rectify the problem. If the door edge scrapes and binds, try removing some excess aluminum meat from the door edge with a course file (meat file).

In some instances the door may be removed and repaired. This is usually a two person job. If the door is binding on the Header (top) or bottom (threshold), remove the Hinge Pins (there may be Security Screws installed) and remove the door.

File with a meat file in order to remove excess material.

Another Face Plate Assembly

On some older store fronts, the Latch Assembly is designed and built the same except that it is retained a little different. You will find that there are no screws and there is no cover plate on the edge of the door. There is however a long felt or furry Weather Strip continuing up the entire Door Edge. You must slide the fuzzy Weather Stripping off the Door Edge Face Plate before exposing several screws that must be removed in order to service the Mortise Cylinders.

If you grab this furry Weather Strip with pliers at the top of the door and gently pull up, the Weather Strip may be removed by sliding it up and out of the track it is in.

Proceed to do the same to the bottom Weather Stripping.

Once removed, you will see several screws along the Door Edge.

Remove these screws and using a screwdriver, pull the Door Edge cover plate from the door. The Mortise Cylinder, Set Screws, and Latch Assembly are now assessable.

Some of the older Aluminum Store Front Doors appear not to have any Face Plate at all. The door edge is one continuous piece. Remove the three or four screws holding the aluminum door edge on and then using a large screw driver pry the Face Plate from the edge of the door. It will come off fairly easily. Do not bend the aluminum Face Plate or you are in trouble. Be gentle.

Latch Assemblies

The entire Latch Assembly is usually held in place by two extra large sheet bolts / screws which have springs around them. Be careful when removing the Latch Assembly so as not to drop the screws and or springs down the hollow Aluminum Store Front Door. The spring and bolt allow the Latch Assembly to be moved and adjusted for proper operation. I some times leave the Latch Assembly loose in order to insert my Mortise Cylinders and get everything lined up before tightening the assembly sheet bolts / screws. Only experience will dictate what and when.

Re-install the Mortise Cylinders.

After the Mortise Cylinders are re-threaded into the Latch Assembly they are held in place and kept from turning by re-inserting the flathead or Allen Screws until they gently bind against the Mortise Cylinders threaded wall. Remember that the Keyway should be in the correct position with the Key cuts upright.

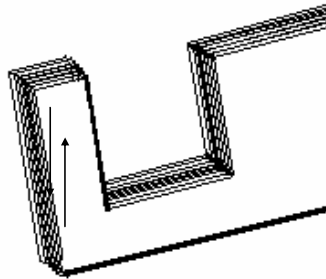
I do not remove the Set Screws completely.

Hook Latch Assemblies

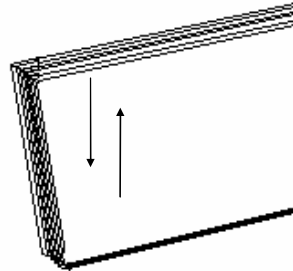
Swing Latch Assemblies

Spring Latch Assemblies

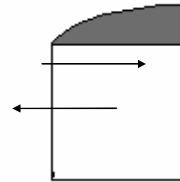
Hook Latch



Swing Latch



Spring Latch



The Hook Latch and Swing Latch are swung up and down in order to Lock and Un-Lock the Aluminum Store Front Door. Or a sliding type door.

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The Swing Latch and Hook Latch are made of laminated plates. The better the Latch Assembly the higher the cost. But the good ones are well worth it.

The Spring Latch Function is similar to that found in a standard Knob Set Latch except, this Spring Latch Function is used with Paddle Handle Assemblies.

The Spring Latch is used where one has to use a Paddle Handle in order to Un-lock the Spring Latch.

The doors at apartment complexes that utilize the Spring Latch Assemblies are notorious for being Dogged Open and or a brick or wedge used to keep the door open or Un-Locked. People Dog Open the door for friends, visitors and service personnel.

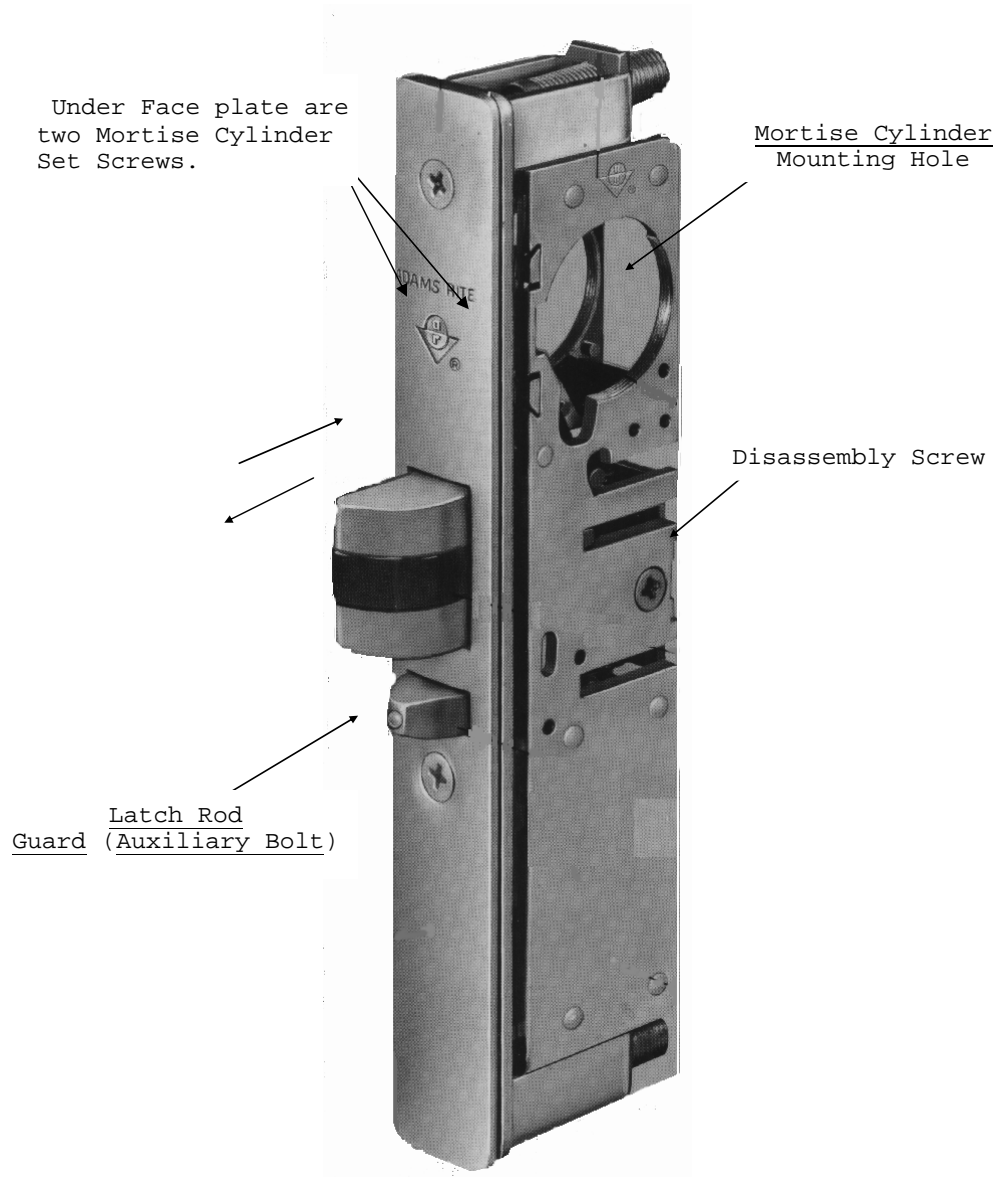
Service personnel, visitors, crooks and more Dog Open the doors.

Whenever I see this type of door with a brick or wedge holding it open, I remove the object and allow the door to close and Lock.

In the above information I have referred to the door being Dogged Open. I am referring to the layman obstructing the door from closing correctly by the means of some object placed in between the door and frame.

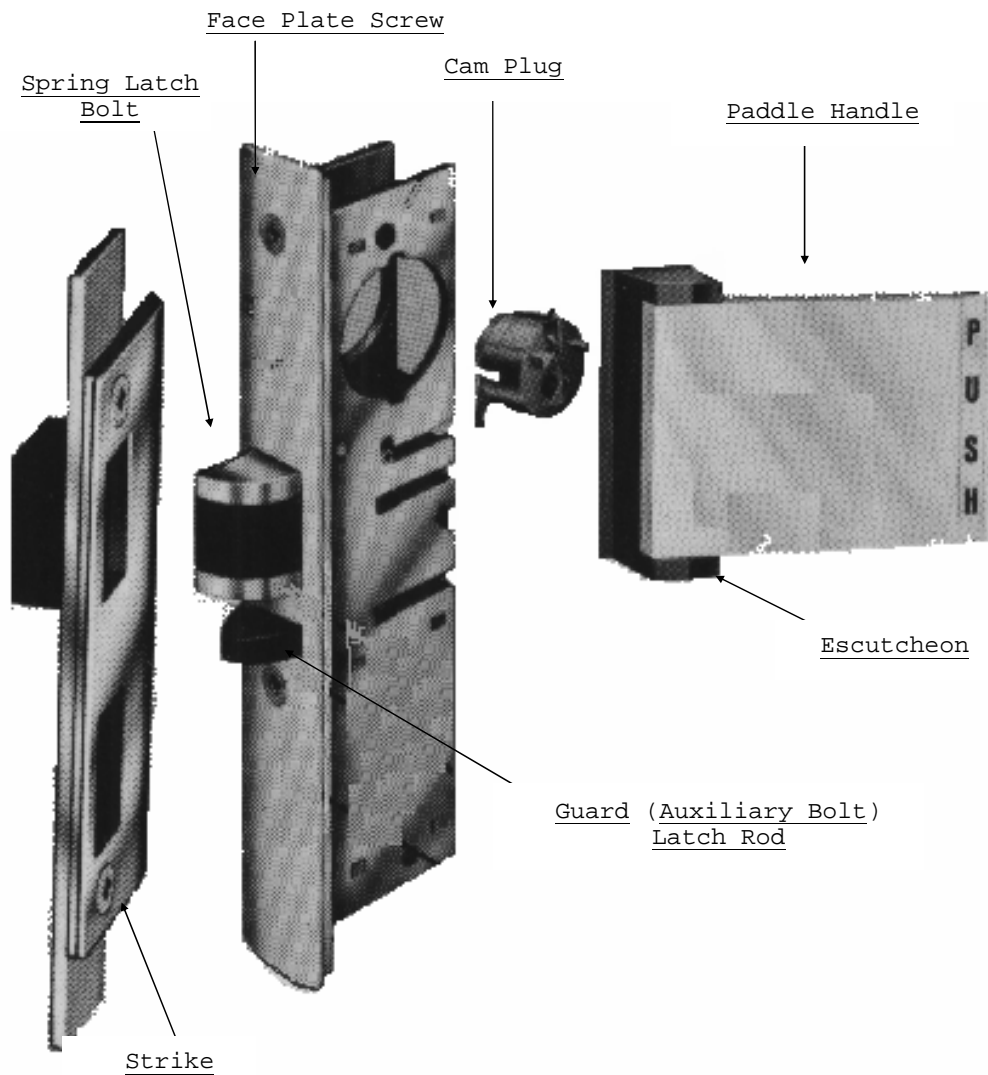
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Spring Latch Assembly



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Spring Latch with Paddle Handle Assembly



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Dogging the Spring Latch Assembly

The Spring Latch Assembly may be professionally Dogged Open.

Here is How:

Hold the door, straddling it so that one may view both sides of the door at one time.

A working Key is needed.

The Key is inserted into the lock.

The Spring Latch is pushed in and held in, while the Key is turned all the way in one direction until the Key stops turning. A click may be felt.

Then lightly back of the Key. The Spring Latch should stay retained inside the Spring Latch Paddle Handle Assembly when you let it go.

If the Spring Latch does not stay retained repeat the process.

If the Spring Latch again does not stay retained.

Hold the Spring Latch in and try to dog open the Spring Latch by turning the Key in the opposite direction. If all fails then the dogging mechanism is bad and it will not work.

The entire Spring Latch Assembly should be replaced.

To release the Dogged Open Spring Latch insert the working Key and turn the Key in the opposite direction as of that which dogged it open.

When the Key stops turning the Spring Latch should release.

The Spring Latch Assembly is utilized with the Paddle Handle Assembly. The Spring Latch Assembly with a Paddle Handle will only use one Mortise Cylinder on the outside.

The Swing Latch may utilize two Mortise Cylinders. One Cylinder on the inside of the door and one on the outside. Or one Mortise Cylinder on the outside and a Thumb Turn on the inside.

The Spring Latch and Swing Latch assemblies may be changed from Right Handed to left handed and vise versa.

The Latch Assembly body is separated and the spring and latch swapped to the opposite side. A very simple operation.

On one occasion I swapped out a Swing Latch Assembly for a Spring Lath Assembly with very little modification or should I say customizing.

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I was forty five miles away from my shop and found that the Spring Latch and Auxiliary Bolt did not fall into the Communicating Doors old strike hole correctly. I needed to cut and extend the old Strike Hole up about an inch.

The Auxiliary Bolt would fall into the old Strike Hole allowing the Spring Latch to be pushed in.

I marked where I needed to extend the Strike Hole / Latch Retaining Hole up to and proceeded to drill a series of holes in a rectangular formation. After the holes were drilled, I then clamped a hack saw blade into a small pair of vise grips and hack sawed through the drilled holes. When the two sides of the rectangle were cut I bent the piece of aluminum up thus removing the piece. The Spring Latch now entered the new Strike Hole correctly. The Auxiliary Bolt was falling into the old strike allowing the Spring Latch to be pushed in.

I removed the Latch Rod / Guard / (Auxiliary Bolt) and the Spring Latch could not be credit carded in this manner at all.

The door closer would close the door and it was Locked.

I would suggest acquiring a Spring Latch Assembly and dissecting it to see how they work. They are quite simple to work on.

Keep in mind a Swing Latch may be replaced with a Spring Latch. One may or may not use a paddle handle.

Spring Latch Assemblies Hand of Lock

Spring Latch Assemblies come Handed and are sold Handed. However the Hand of the Spring Latch Assembly may be changed by removing the disassembly screws and gently removing the Latch Assembly retaining Plate.

The other Assembly parts are then switched and turned around, changing the Hand.

This is a very simple operation and only takes several minutes to accomplish.

If it is a Paddle Handle Assembly with the Spring Latch Assembly, the Cam Plug has a small "C" clip holding on its Tail Piece. Removing the "C" Clip will allow the Handing of the Tail Piece.

The other Assembly parts are then switched and turned around, changing the Hand.

This is a very simple operation and only takes several minutes to accomplish.

Mortise Cylinder

Cylinder Lengths, Finishes, Expansion Rings (Collars)

Mortise Cylinders come in varying lengths and Finishes.

The length and the shape of the tailpiece to be used are important when determining what Mortise Cylinder to use and where.

It is very important to have the right size, (length), and Finish.

Spacer rings are available to adjust the Cylinder to the right Depth above the surface of the door.

Experience is really the determining factor when using spacer rings.

The Tailpiece must be in the upright position on order to screw the Mortise Cylinder into the Latch Assembly.

I spray the threads on the Male Mortise Cylinder and the Female threads on the Latch Assembly.

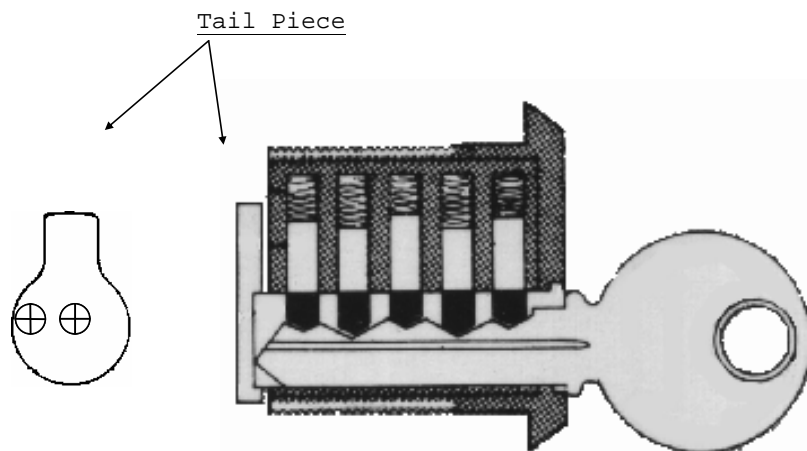
I insert the Working Key only half way into the Keyway.

Or better yet an un-cut blank inserted all the way down the Keyway.

Then I use this as a sort of installation "wrench" to aid in inserting and threading the Mortise Cylinder into the Latch Assembly.

The Mortise Cylinder is then screwed in until the Tail Piece will turn without missing the Latch Assembly or binding at the Latch Assembly.

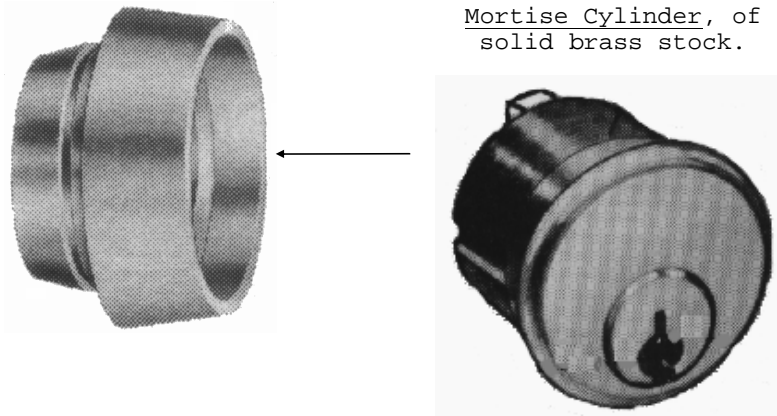
If the Mortise Cylinder is threaded to deep into the Latch Assembly the Tail Piece will bind against the locking assembly and prohibit proper operation. If the Mortise Cylinder is not threaded into the unit far enough, the Tail Piece will turn around and around without contacting anything.



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A door utilizing Double Cylinders must have the Cylinders and Expansion Rings screwed in to the right depths on both sides of the door, so that both Cylinders and their Tail Pieces operate the Latch Assembly without missing and or binding. One Cylinder may be turned in quite a bit and the other Cylinder hardly threaded in at all. That is all right. Only experience will dictate how deep to thread or not to thread in the Mortise Cylinders.

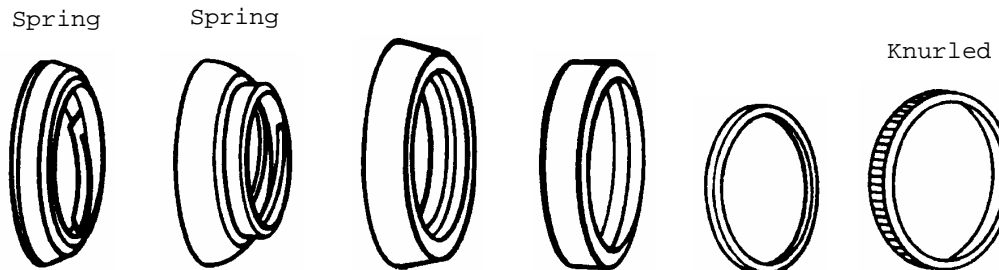
The Mortise Cylinder slips inside the Expansion Ring/Shell Combination. The Ring/Shell is needed in order that the Mortise Cylinder does not stick out from the door face.



Different thickness of Expansion Rings/ Collars Mortise Cylinder Spacer Ring including rubber Expansion Rings/ Collars, and spring loaded Expansion Rings are on the market. My arsenal contains dozens of sizes, Finishes, and materials.

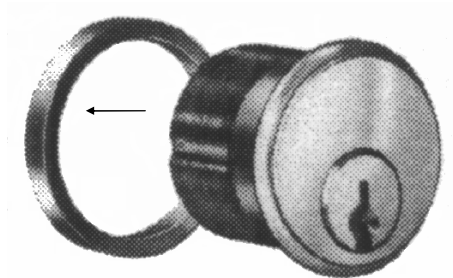
Patience may be the answer.

Expansion Rings/Collars



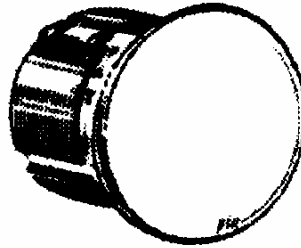
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Mortise Cylinder
and
Expansion Ring



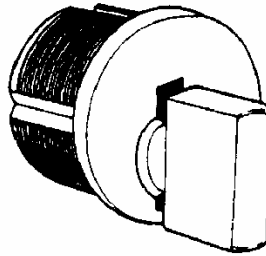
Mortise Cylinder Dummy

Used for filling the Latch assembly on the inside of the door.



Mortise Cylinder Thumb Turn

Used for turning the Latch assembly on the inside of the door.



Cylinder Removal

Washers were found to have been used in order to space the Adams Rite Assembly and face plate.

We will replace them upon our re-assembling the unit later.



This picture shows a Siding Door Hook Latch Swing Assembly was used where a Standard Swing Latch would have sufficed.



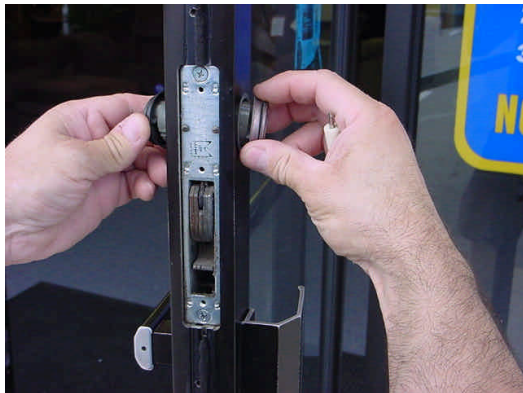
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A Key or a Key Blank may be used as a turning wrench in order to remove the Mortise Cylinder from the door. Pre-spray with a light lubricant if need be using an extension tube. Spray well inside around swing latch. And do not use a pipe wrench or water pump pliers in order to remove the cylinders or the cylinders will be astatically ruined.

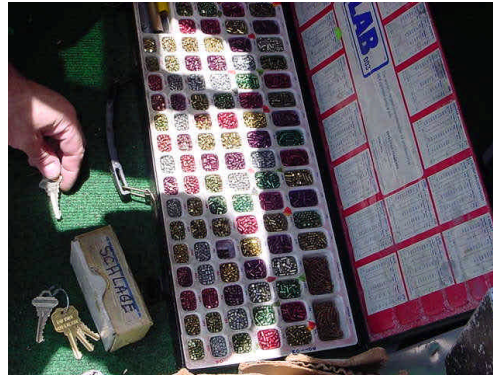


The two cylinders inside and outside are removed for Rekeying.



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The cylinders are rekeyed



The two Cylinders are replaced
and the set screws tightened.
The face plate is ready to
reinstall.



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These 4 Way Mounting Tabs are spacers which are used with the Mortise Cylinder Assembly in order to space it correctly inside the door. The 4 Way Mounting Tab may be used concave or convex. They work Great.

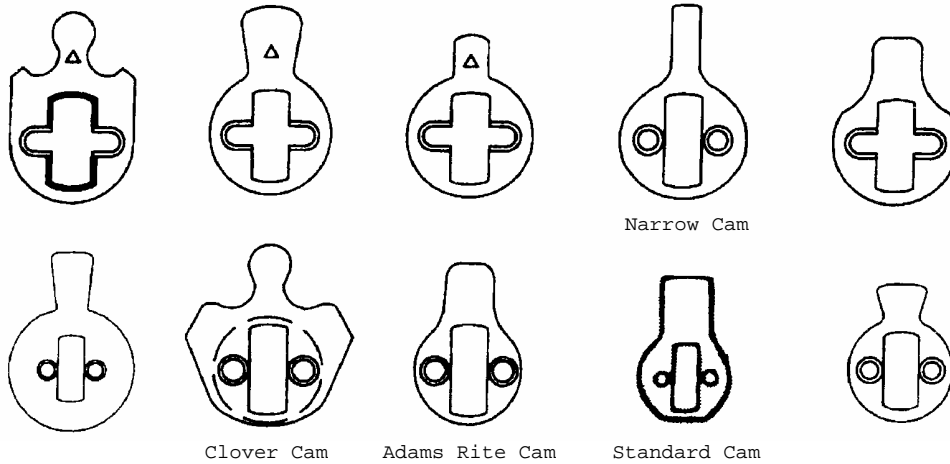
If the door works correctly and the assembly works correctly, most likely the tabs are already used or they were not needed. If the assembly has been damaged they may be required to line the assembly up. Usually a simple Rekeying does not warrant removing the assembly from the door.





Mortise Cylinder Tailpieces

Example of the Many Tail Pieces Available



Mortise Cylinder Interchangeable Core Shell

Let's assess the situation

The Interchangeable Core may be utilized in a Mortise Cylinder Shell.

Please note that when servicing the Interchangeable Core Mortise Cylinder Shell, loosening and or removing the Latch Assemblies Set Screw is only one step in the IC Mortise Cylinders removal.

When working with an Aluminum Store Front Door, the Mortise Cylinder I.C. Shell is installed first.

Then the I.C. (Interchangeable Core) is inserted with the Control Key.

However; before an I.C. Core is installed into a Mortise cylinder I.C. Shell, one usually has the option of installing a Secondary Security Screw first.

The Allen Screw/Secondary Security Screw is screwed/threaded into its corresponding Secondary Security Screw hole recessed into and through the inside of the IC Shell.

Secondary Security Screw is threaded through the Mortise Cylinder and the Mortise Cylinders outside Male threads, until it protrudes from the inside out and binds gently against the Swing Latch assemblies Mortise Cylinder Female threads.

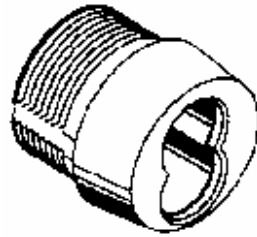
This aids in the retaining and Security of the Mortise Cylinder Shell.

The Control Key is then used to insert the Interchangeable core into the IC Shell.

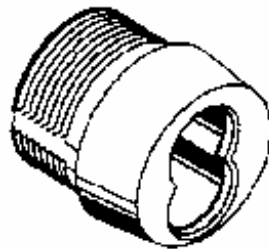
The secondary security screw keeping the Mortise Cylinder I.C. Shell from being threaded out of the Swing Latch Assembly.

In theory you must use the Control Key to remove the I.C. Core, so that you have access to the Secondary Security Screw. The screw is then removed and the Mortise Cylinder I.C. Shell threaded out of the aluminum door Swing Latch Assembly.

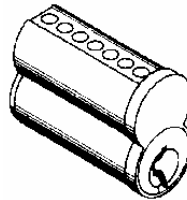
Interchangeable Core Mortise Cylinder Shell



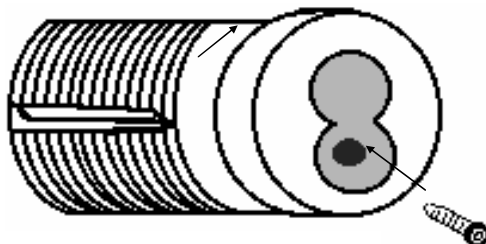
Mortise Cylinder
I.C. Shell



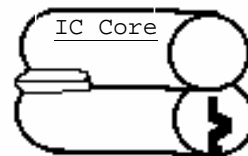
Core



Mortise Cylinder I.C. Shell and Core



Secondary Security Screw
Internal Set Screw



IC Core

This is when you need the Core Key (Control Key) in order to remove the IC Core before removing the Mortise Cylinder Shell.

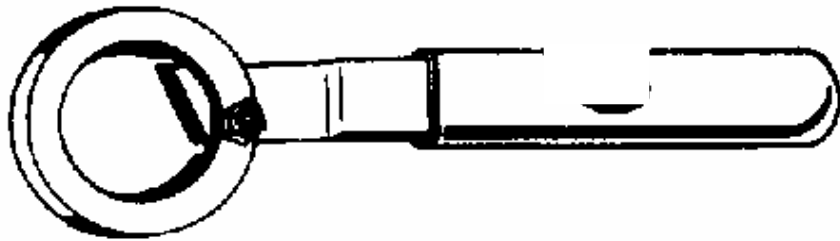
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If the IC Core Key is not available it will then become necessary to either Drill For The Control or force the IC Shell out of the Assembly. If force is needed, One option is to use a special mortise cylinder removal tool or a pair of water pump pliers.

Apply a pair of Water Pump pliers to the Shell, turning Counter Clockwise and twist and thread the mortise cylinder I.C. Shell right out of the door, regardless of the secondary security screw. Be careful not to mar the door.

A cloth or bandanna wrapped around the Shell will aid in this.

This is a "Special" (\$\$\$) Mortise Cylinder removal tool.



This is why when one uses water pump and or similar pliers when removing the Interchangeable Core Mortise Cylinder Shell from a door the threads are stripped in the swing latch assembly. They are stripped by the secondary security screw.

The stripped threads will not allow the re-insertion of a Mortise Cylinder and the whole Latch Assembly trashed and a new one installed.

At this point you would have the option of replacing the swing latch assembly completely or using a special Re-threading tool and re-thread the mortise cylinder swing latch assembly threads.

There is a Mortise Cylinder tap and Dye set for Re-Threading (Taping) the Female part of the Latch Assembly and Dyeing the Male Mortise Cylinder and they are great. You could re-thread the Mortise Cylinder itself with the Dye set or replace it all together.

This is the tap and Dye set. It contains three pieces and instructions.



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The dye when examined reveals very tight threading.



The cylinder is then threaded in the normal dye method. Oil well, dye a quarter turn and then back off. The unit is then threaded again a quarter turn and backed off. Oil added and the procedure repeated until the cylinder is re-threaded.



This attachment is used to secure the cylinder in a vise for dyeing.

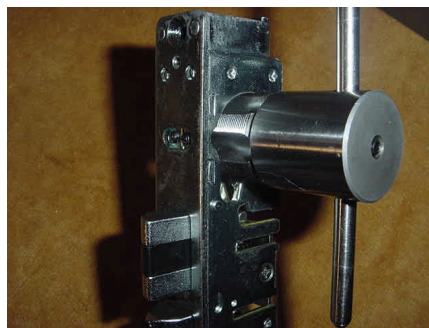
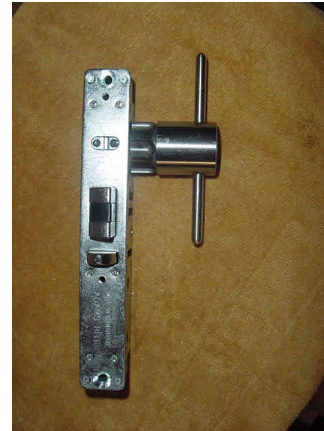


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The cylinder holder may be seen here from different angles.



The Tap may be seen here in action working on a Spring Latch assembly. The assembly is re-threaded in the normal tap method. Oil well, tap a quarter turn and then back off. The unit is then threaded again a quarter turn and backed off. Oil added and the procedure repeated until the cylinder is re-threaded.



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Of course this tap and dye set is over priced by the Manufacturers and the Distributors taking advantage of the Locksmith again.

I have purchased and used them and have made some serious cash with this tool.

However a pretty expensive initial investment.

If one needs to they may strip out "ANY" Mortise Cylinders which are troublesome, Tap the Female assembly and Dye the Male Cylinder itself if need be or replace the entire assembly and Mortise Cylinder.

Bypassing a Mortise Cylinder

High security Mortise Cylinder

Please always keep in mind that the locking device and its protectiveness is only as good as what it is mounted on.

There was a company that sold a kit through the Locksmith Ledger in the 1980's.

They claimed their bypass kit could bypass any Aluminum Store Front Door Lock.

Investigation:

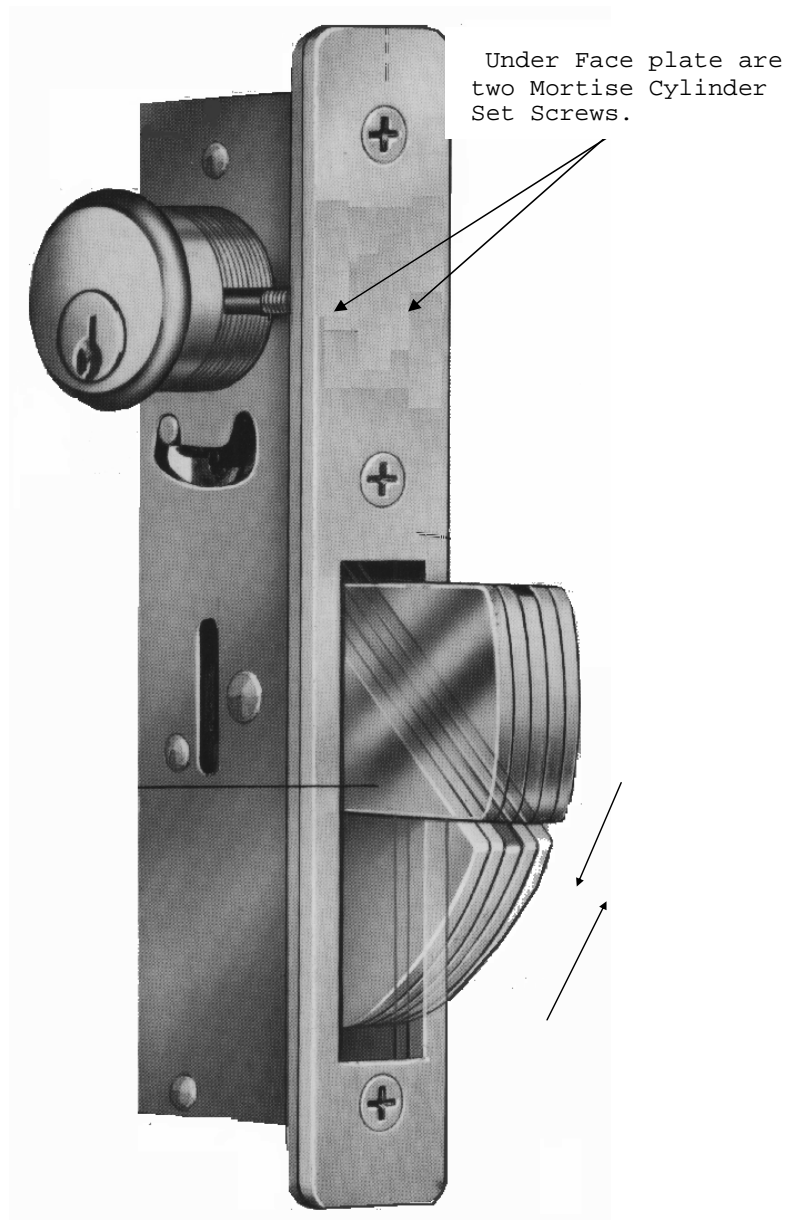
Well my investigation revealed that this special kit instructed one, to drill a small access hole at an angle under the Mortise Cylinder Lock and using a stiff wire, flip the Lock mechanism inside.

I presume that the small drill hole could then be filled with liquid steel or aluminum.

Bottom Line;

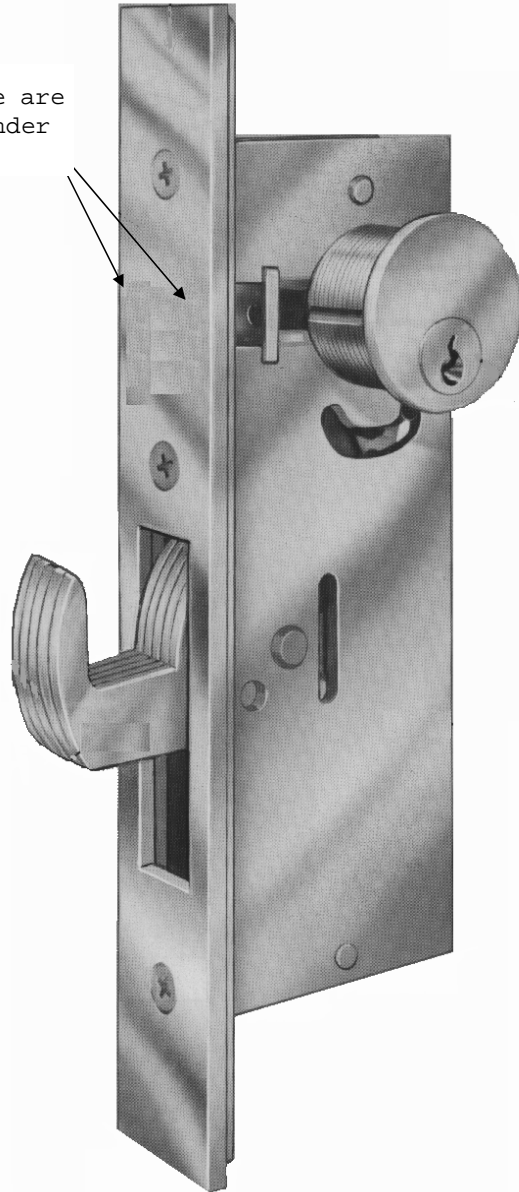
Simply drill for the shear line as with most lock cylinders.

Swing Latch Assembly



Hook Latch Assembly Sliding door

Under Face plate are
two Mortise Cylinder
Set Screws.



Protecting the Aluminum Store Front Door

These are protection plates which are added to the front of the aluminum door in order to offer more protection. Easy to follow instructions with security screws and special hardware usually accompany the materials.

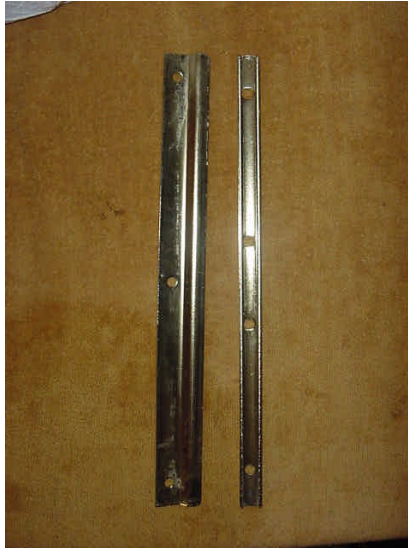


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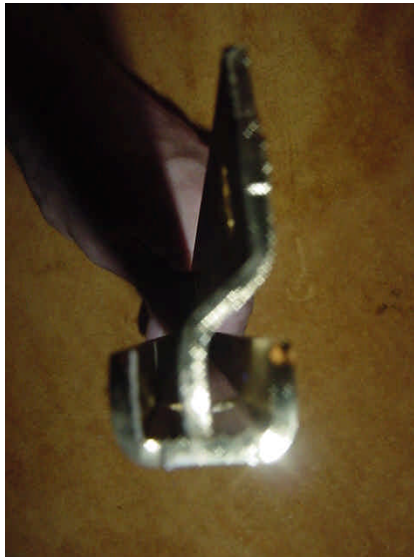
These protector plates (Don Jo™) are expected to prevent jimmying and shimming the doors Latch and Adams Rite Assembly. They work Great.

This is another plate, and by the way they make dozens of shapes for different configurations and applications.

These two pieces "Fit Together" and offer protection from "Credit carding the latch or using something to pry with. One piece is attached to the door and the other is attached to the jamb.

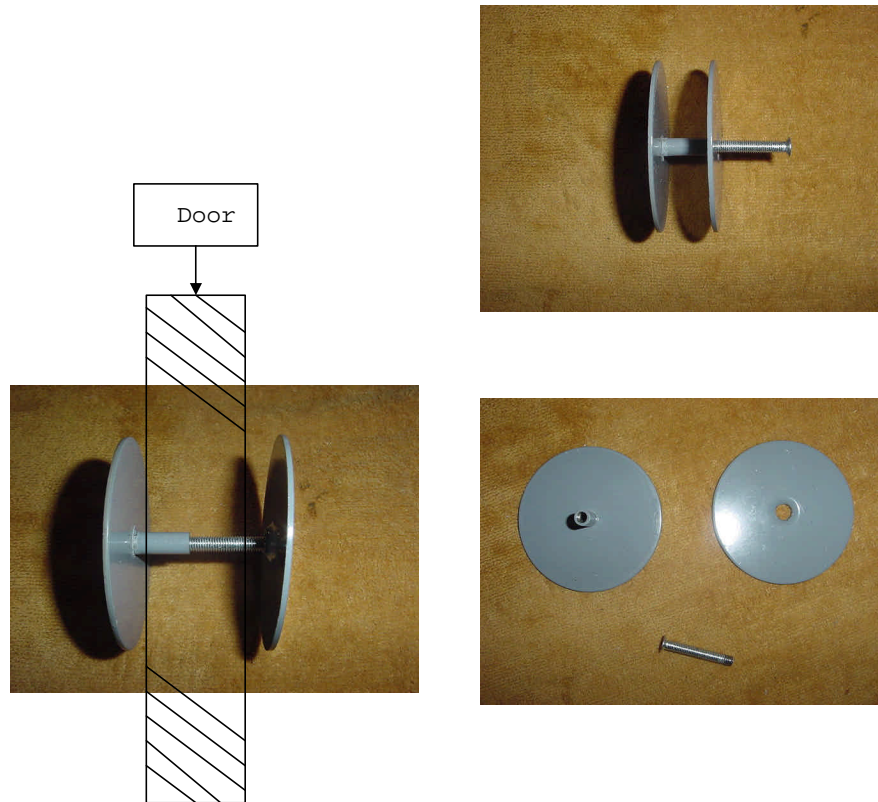


The cross section shows where the anti shimming takes place.

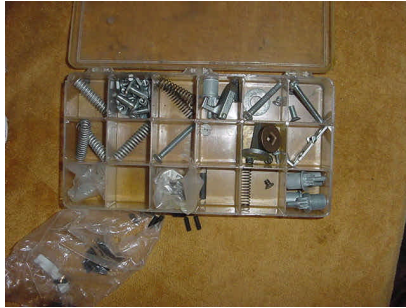


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This is a three piece Don Jo™ cover plate for any hole. This cover plate comes in several sizes and assorted colors and the unit may be painted as well. The piece with the large female extension is inserted through the outside of the door and the piece with the plain hole is used on the inside of the door. The screw is inserted and tightened down, gently. These are used in residential applications as well as commercial applications.



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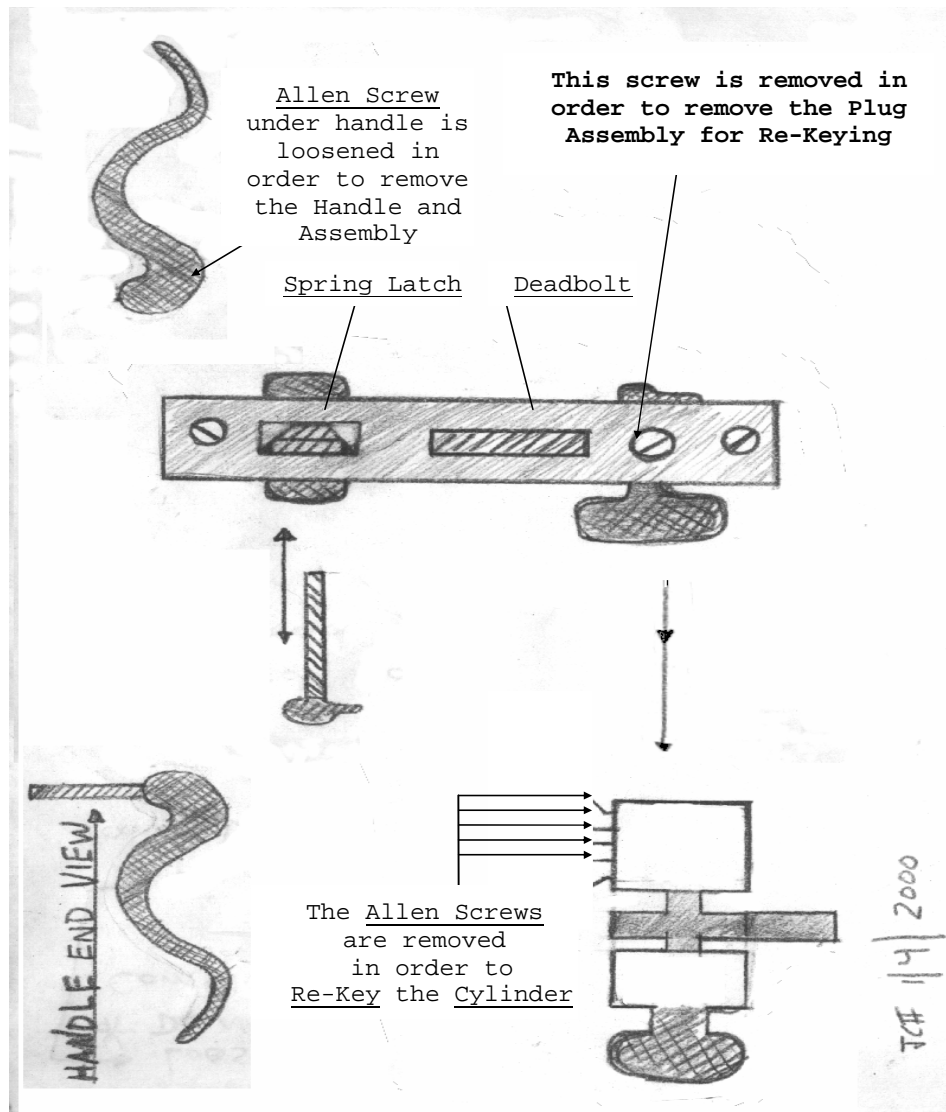
Residential Atrium Door Mortise Cylinder Assembly

(AKA) also known as a Profile Cylinder

The Profile Cylinder comes in lengths between 1.20" to more than 3".

The Plug diameter is approximately 0.495 - 0.510".

This is actually a very easy Lock to work on.



Ferry Boat Hardware

More Mortise Cylinder Applications Miscellaneous Security Hardware
and Applications



Picture FB1

A Door Closer may be seen mounted above the door in order for the door to shut and secure itself correctly.

The hinges may be seen to the right on the outside of the door and are of little concern if attempting to gain entry.

Simply use a punch and drive the Hinge Pin up and out of the hinge.



Picture FB2

Even those hinge pins with Security Screws may be driven up and the screws sheered off.

For our added security One would attempt to secure the hinge Pins as I have explained elsewhere in the Master Locksmith Security Encyclopedia Set© I believe in Miscellaneous Security Methods©. But if the culprit knows what you know the Hinge Pin is forcefully driven up and out.

Let's face it the Bad Guy© or Bad Gal© is always one up on you.

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The moment you install what ever Security Device or Application you are installing, the Bad Guy© or Bad Gal© is immediately attempting to defeat it. And if my judgment is correct as an Investigator I would presume the culprits will come up with something. It is truly amazing the creativity these criminals put forth in order to deceive.

My mother once told me
"if the Bad Guy© or Bad Gal© put all of the; deceitful, under handed, evil energy into a cure for cancer, cancer would have been cured long, long ago".

Any way back to Hinge Pins.
And besides this is exactly what this P.E.S.T.© Program is all about.



Picture FB3

Ferry Boat Men's Room Hardware

This is a closer look at a similar Lockset located on the Men's Room Door. Here again was a Door Closer to ensure the closing and security of the door. To gain access to the Mortise Cylinder the Cover Plate would be removed from the door edge by the removal of the two screws indicated by the white arrows in **Picture FB5**.

Picture FB4



Picture FB5



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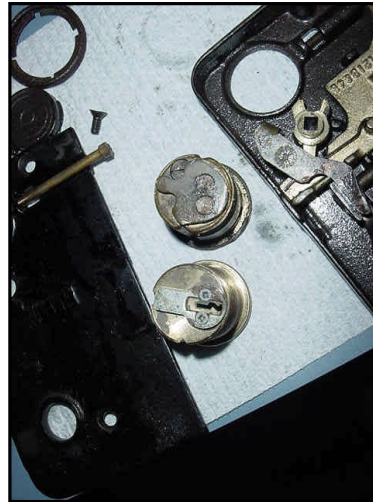
After the Cover Plate is removed you will see where a "Set Screw" holds the Mortise Cylinder in place. Spray with Lubricant.

And use the appropriate tool for the "Set Screw" removal. Such as an Alan Wrench For an Alan Screw, or a Mini Flat Head for a Mini Flat Head.



Antique Mortise Lock Assemblies

I filed the tail piece on the left cylinder to match the tail piece on the right cylinder.



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Pushing the upper button and closing the door restricts any existing key from turning the Mortise cylinder when inserted from outside.

This was probably a boarding house at one time. At night after a certain time the button pushed and the door closed. Thus locking out any late arrivals.





Rim Cylinders

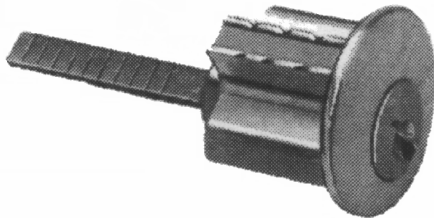
Rim Cylinders come in Dye Cast aluminum or solid stock. The solid stock may be solid bar stock of Brass or Stainless. This type of lock is found on overhead garage doors, Night Latches and other similar locks. It usually has a ring (Escutcheon) for the face of the door.

It is held in place by an attaching plate and by two small bolts from the rear. On an overhead garage door there is usually a small box on the inside of the garage door. A couple of screws will remove this and access to the Rim Cylinder is gained.

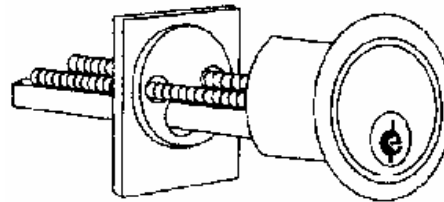
Be aware that not all garage overhead door Rim Cylinders may be serviced. I have run across several that were very difficult to work with, if at all serviceable.

The Dye Cast type is of inferior quality and is offered in a Composite Keyway. This means that the Keyway will accept several makes of Key Blanks rather than just one, let us say dedicated for Schlage or Arrow.

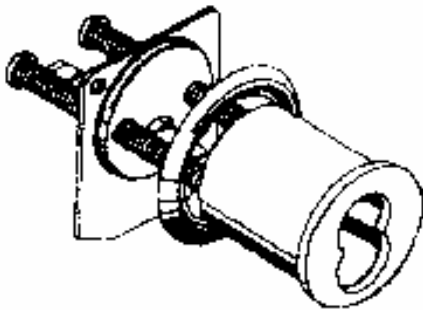
Dye Cast Rim Cylinder



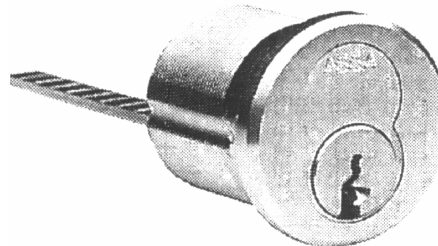
Rim Cylinder, Mounting Plate
and two Mounting Bolts



Interchangeable Core
Rim Cylinder of
solid bar stock.

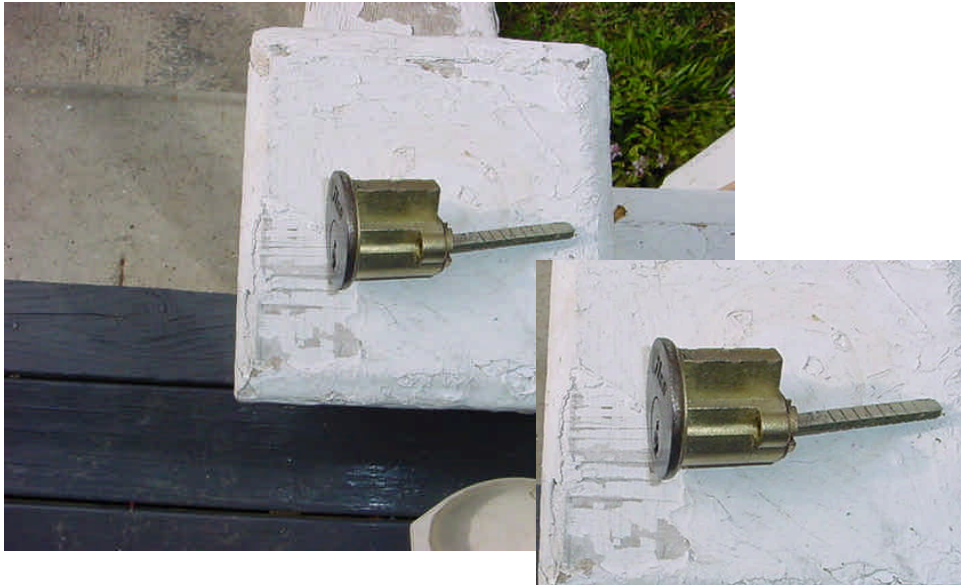


Interchangeable Core
Rim Cylinder of
solid bar stock.
IC Core has been Inserted









A Detex Fire Egress System

The following Fire Egress System shown here is very easy to install and operate.

Sunday, September 22, 2002 at 1:00pm the Walmart in New Bern North Carolina called. They stated there was a Fire Alarm sounding on one of their rear doors and asked could we come out and repair it.

We told them our service rate for a Sunday \$85.00 service call and to "Silence" the alarm was \$45.00. Anything else would incur additional charges.

Walmart stated the "Other" Locksmith had five car openings and could not come out.

Walmart requested our services immediately. We dispatched.

The 9 Volt Battery enclosed in this unit will last for several days while supplying power to the shrill Toned Piezo Sounder.

The shrill noise was extremely sharp and to the point.

I silenced the unit with some electrical tape from my tool box.



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I attempted to Pick the Larger SCl Mortise/Rim Cylinder but this was to no avail.

I was hoping I could Pick the Cylinder in order I might silence and reset the unit. If I had Picked it in the wrong direction I would use my plug spinner.

I could not Pick It.

I could not Pick Gun it.

I tried and tried and tried.

Meanwhile the Piezo Fire Egress Sounder continued to emit its piercing and deafening sound.

The manager stated the key was with someone else and they were not on the property. I asked if he had ever actually seen the key and he stated he had not.



I stated to the manager I did not believe a key even existed for the unit. I had been through this all before.

The smaller wafer lock located at the top of the unit is what holds on the cover. If the smaller wafer lock is threaded of one may then disconnect the battery in order to have silence.

I attempted to pick the smaller Wafer Lock on top and this also was to no avail. And if I could pick the Smaller Wafer Lock, I would have to pick it and turn it a quarter turn counterclockwise. It would then lock up and I would have to pick it again another quarter turn counterclockwise and then pick it again counterclockwise another quarter turn.

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This process would have to be repeated four times in order to turn the plug one revolution.

And it takes about twenty revolutions in order to thread The unit "ON" or "Off". The wafer lock in this case is fitted with the Threaded Hole (the Female Part) and the Threaded Rod (the Male Part) is affixed to the unit. As with some Gum Ball machines the Lock may be fitted with the Male Threaded Rod and the Housing is fitted with the Female Threaded Hole.

Oh Boy.

Meanwhile the Piezo Fire Egress Sounder continued to emit its piercing and deafening sound.

I then attempted to Impression a Key for the wafer Lock.

This was futile to say the least for whom ever threaded the wafer lock on did so with a vengeance. The unit was screwed down so tight you could not turn it with a Tension Wrench let alone a Key Blank while Impressioning.

Some idiot had torqued it down. Liz went into Walnmart and got a Long Handled Clamp Vice from the store in an attempt we could clamp the cover at the lock and relieve some pressure.

The clamp turned out not to have a deep enough throat to clamp behind the door to the center of the box.

Meanwhile the Piezo Fire Egress Sounder continued to emit its piercing and deafening sound.

I worked for two hours with the little Piezo sounding.

I Picked. I Picked with the Pick Gun and I attempted to Impression, it was all to no avail.

We decided to drill. The cover would have to be removed in order to accomplish any servicing so the wafer lock it is.

My Makita Battery for my cordless drill was dead. I plug in my charger and waited. I did not have a regular drill on hand, sooooo. Liz offered to purchase one but I insisted, no.

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I then drilled the stubborn unit. The Wafer Lock must be drilled on both sides of the key way.



I drilled several times and got rough.

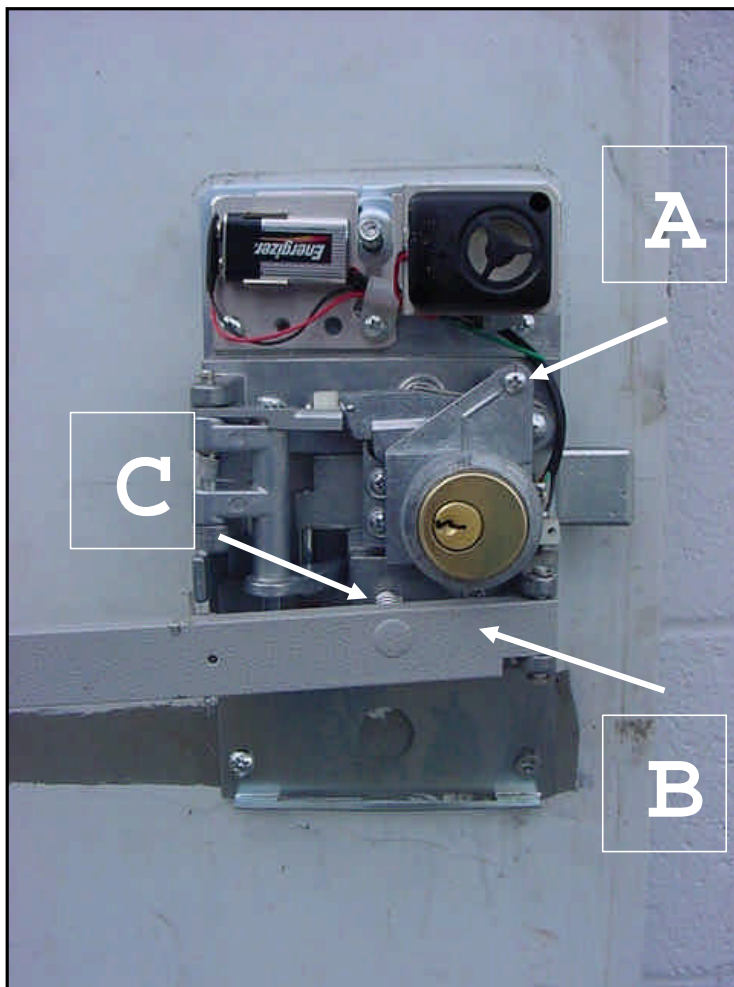
I then used a flat head screw driver to turn the torqued down wafer lock out.

The Orange handle screws are removed as well as the brail embossed handle. The cover is then un-hooked at the bottom by sliding the cover off. The cover is removed by sliding it all the way off of the long handle bar.

The battery may now be serviced.

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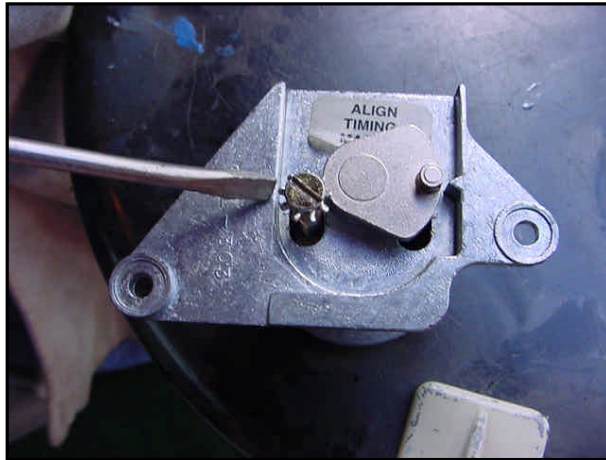
In order to remove the cylinder, one must first remove two shell retaining screws located as shown. The "B" screw is located behind the handle. Simply swing it out of the way.



Leave the Large Spring on the unit (located behind the handle at location "C") and swing the handle back in order to hold the spring in it location.

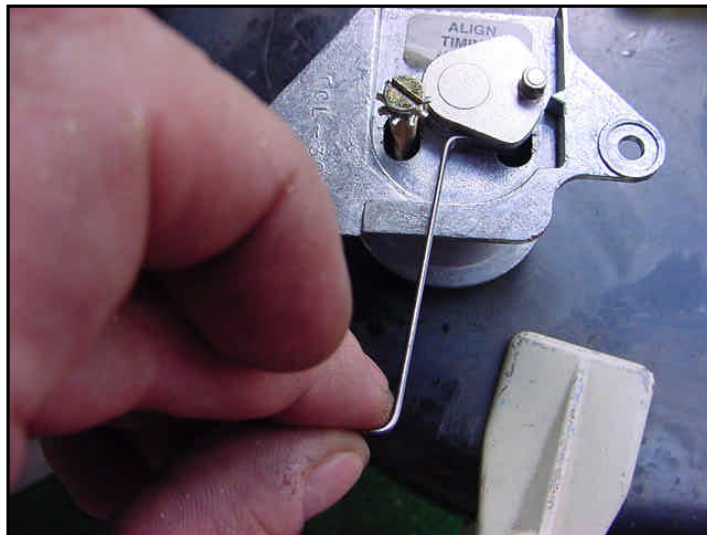
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After the unit is removed it will be found only one retaining screw can be removed if one does not have the correct operating key. The other retaining screw is located under the tail piece.



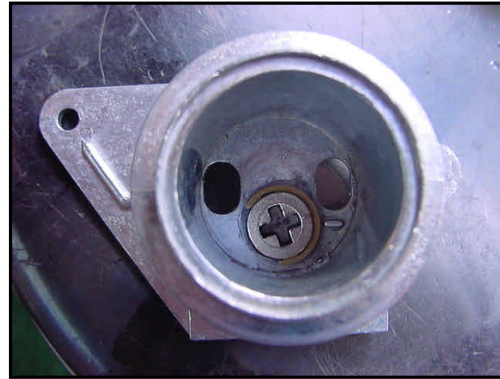
Screw Solution

I removed the first screw as shown and then slid a Torsion Wrench from my Pick Gun Set under the Tail Piece. I then used the Torsion Wrench similar to a side ways screw driver and slowly removed the second retaining screw. The cylinder fell out in my hand.



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After the Cylinder is removed the shell looks like this. Notice the cross type tail piece at the bottom. This is what holds the tail piece. It is important to have the tail piece in the correct position with the Cylinder in place.



The Rim Cylinder may be seen here removed. It utilizes a Schlage Castellated Cap.

I removed the Cap and Attempted to Shim Pick the Lock. This also was to no avail.

Let's face it. This was one of those jobs that BITE!

I Attempted to Shim Pick the Lock.
I Attempted to Shim Pick the Lock.
I Attempted to Shim Pick the Lock.
I Attempted to Shim Pick the Lock.

This was one of those jobs that BITE!

Well we know there were no keys to the entire unit. How?

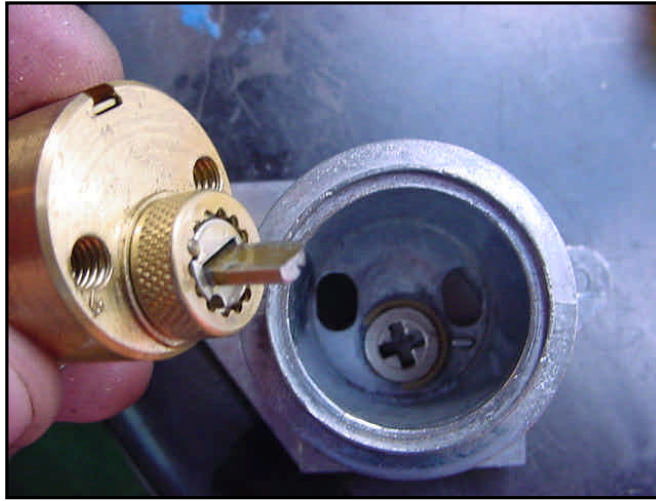
The wafer lock was tightened down so tight even the correct key would not have worked correctly.

The "Other" Locksmith could not come out.

Sure, they are the ones who installed this mess and knew It. They did not want to come out and deal with it.

There was something wrong with the pins inside. I believe someone stacked large pins in one or more pin chambers, leaving no head room at the spring.

No matter how one looked at the situation it stunk.



I had a nice 03 Brass Solid Bar Stock Rim Cylinder on Board and utilized that. Sorry no 26D. I cut the tail piece with my cutting dykes and assembled the Rim Cylinder into the shell. I did this several times so that I could check the clearance and snip. Check the clearance and snip.

Align the Timing Marks

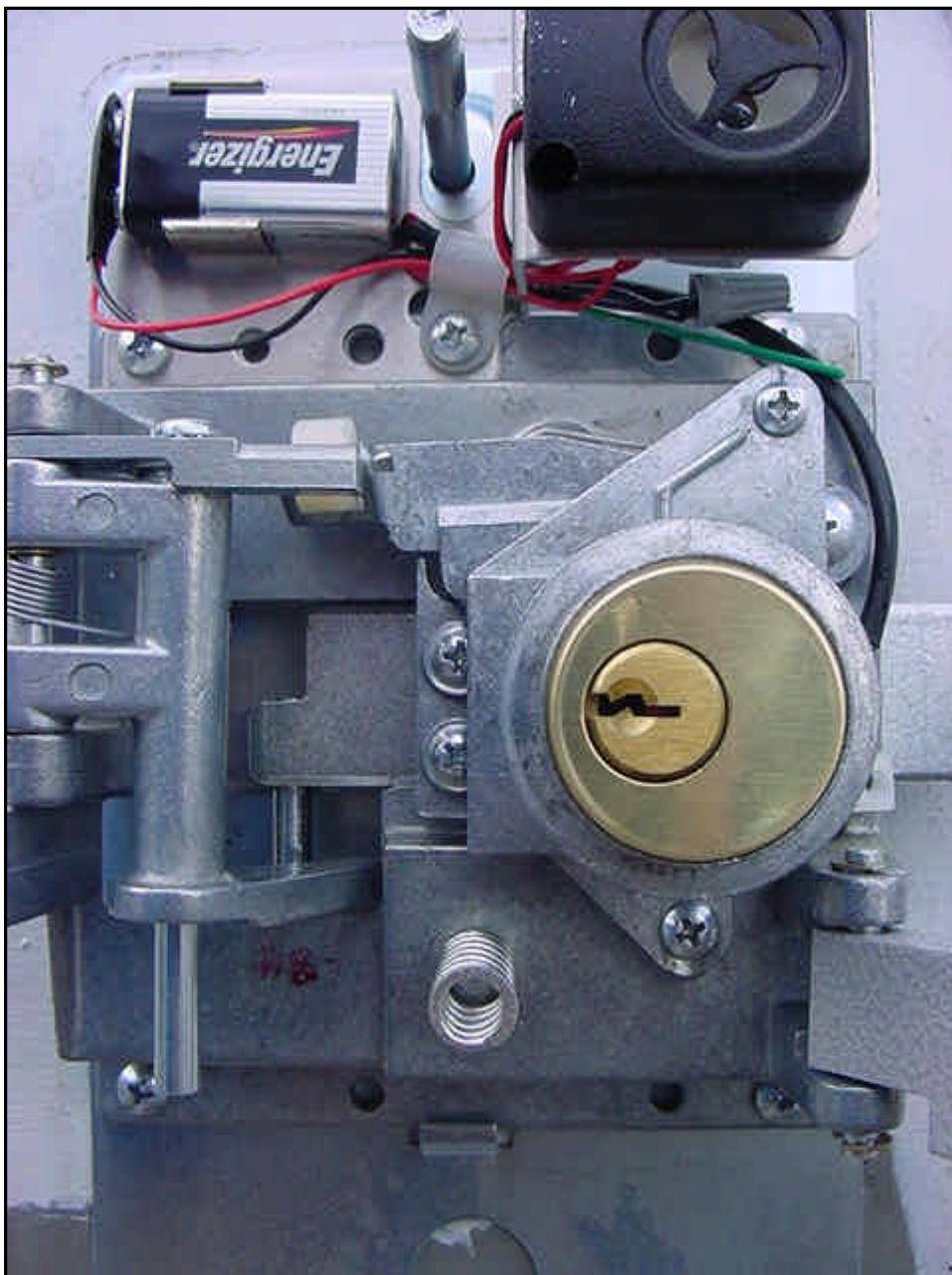
When I felt comfortable with the tail piece length and was going to assemble the unit for good I made sure the "Timing" was correct.

The timing mark should be lined up correctly and the Rim Cylinder and Tail Piece slid into position accordingly.

In our picture they are not quite lined up correctly, yet.



A Closer View



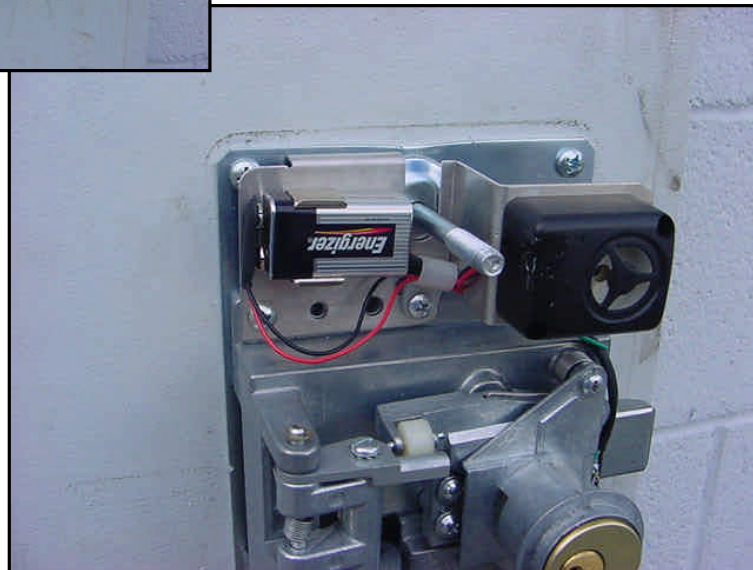
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Re-Installed

The Shell and Rim Cylinder have been re-installed and the handle is swung back into position.

We have used our new keys to re-set the unit and re-connect our battery.

Notice the Latch Bolt is Out into the Locked Position.



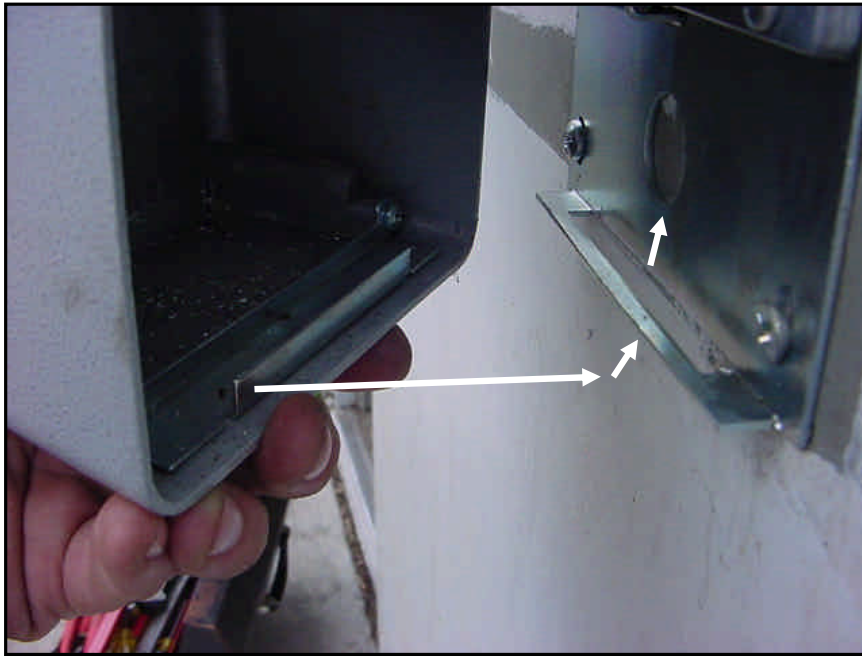
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The cover is slid back onto the handle.



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The cover has some slots in the bottom which mate with tabs on the mounting bracket as the cover is slid up into position.



The wafer lock is then screwed down in order to hold the cover on.

These units are easy to install so I suggest installing a few and make some money if you are requested to do so.
Do not be shy.

Miscellaneous Locks

A Pistol Lock

The Pistol Lock shown here is Key Retaining.

This is a Master Padlock™. It comes with two original Keys both are stamped with the Code. The third key seen in the picture was Impressioned. **Figure 1.**

The Code is stamped onto the front of the lock as well as the Keys in this Example: **P104. Figure 2.**

The Code should be scratched off when placing the lock into service. This is a Five Pin Lock utilizing Micro Pins. This lock should Pick or Impression easily.

Figure 1

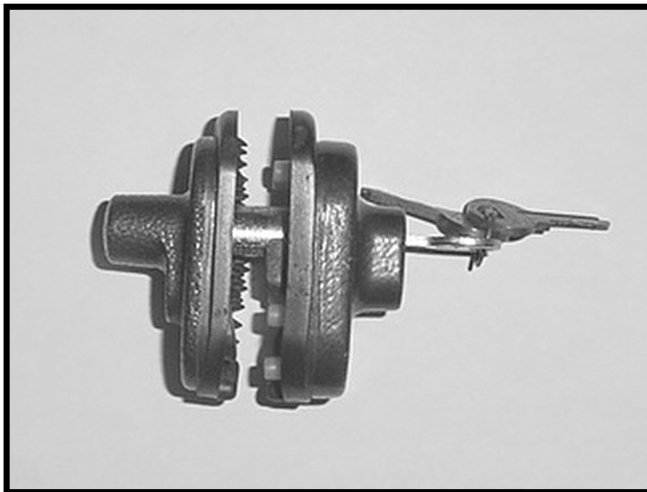
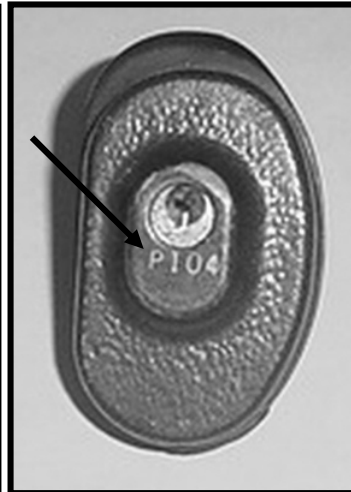


Figure 2



The Lock pictured in **Figure 2** is actually upside down. Remember the Pin Stacks should always be on the topside rather than the bottom side in order to keep out dirt and debris. The Code is stamped upside down.

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The White Plastic Posts are Spring fed for custom cushioning around Gun/Pistol/Revolver trigger and guard.

A Ratchet effect holds unit secure.

The Post with Ratchet Grooves may be seen in **Figure 4** on the left.
The Lands that make contact with the Post and "Lock Together" The two pieces may be seen to the right in **Figure 4**.

Figure 3

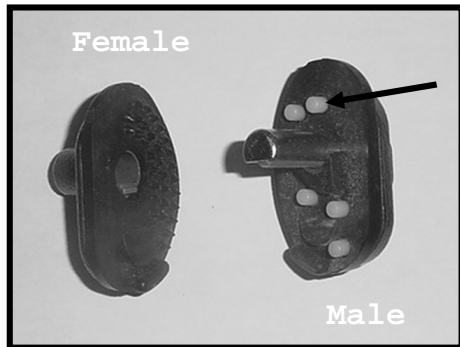
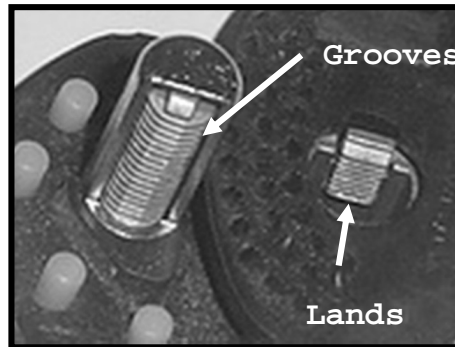


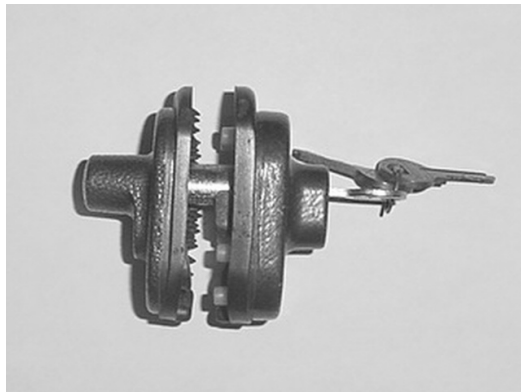
Figure 4



The unit only fits together one way. The half moon Male rod and Female part dictate so.

The Ratchet effect only allows so much tightening when the two halves are squeezed together. Each tightening Click indicates a "Locking" action. The ratcheting effect allows the unit to tighten up, but it never loosens. **Figure 5**.

Figure 5



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When the Key is inserted and turned, it in turn rotates post.
The Grooves may be seen one third of the way around the Post as it is turned.

Figure 6.

The Key now turning the Post, now turns the Post's Locking ratchet area beyond the gripping Land piece until a smooth side of the rod appears, thus releasing the "Locking" action. **Figure 7.**

When the smooth area appears, there is no longer a grabbing, ratchet effect and the unit will slide apart.

Unit will then slide off (Key is retained when unit is unlocked.).
Figure 8.

Figure 6

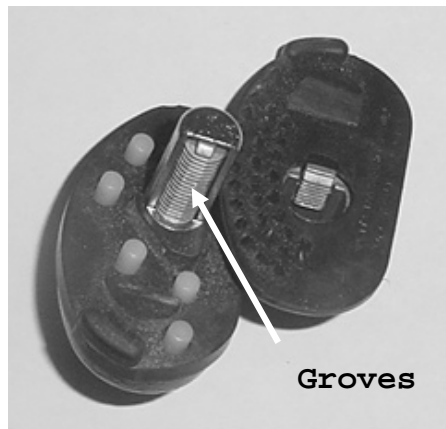
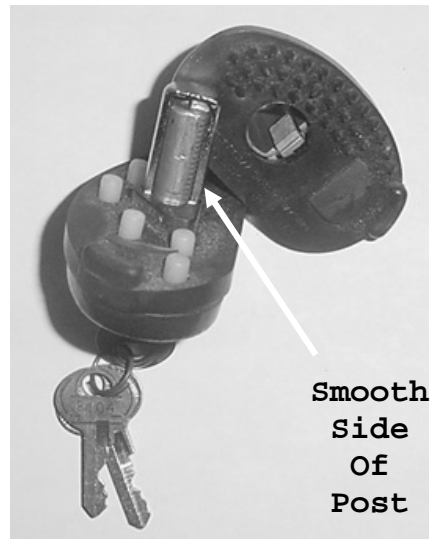


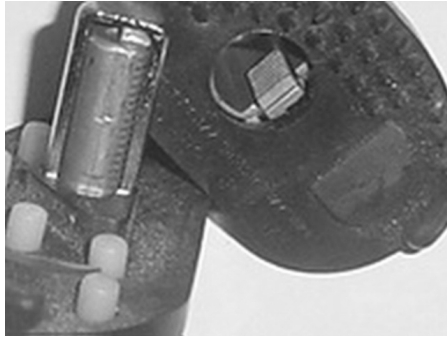
Figure 7



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The Lock Plug will Turn Clockwise or Counter Clockwise thus releasing the two parts. The Key may only be extracted in the upright position.

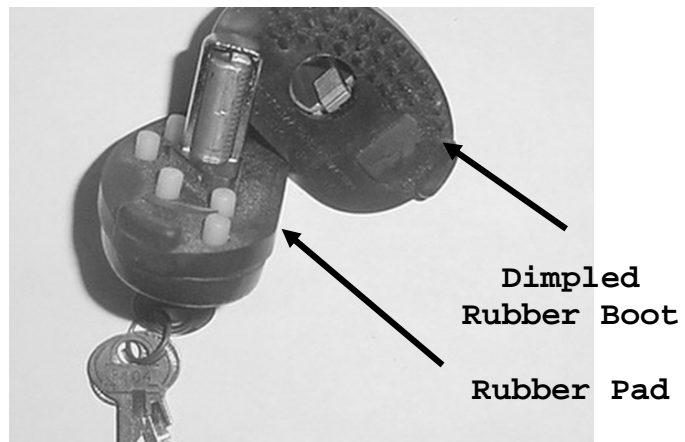
Figure 8



The Metal Bodies are fitted with a dimpled rubber boot and a flat plain rubber pad so as not to mar the firearm. **Figure 9.**

I utilize this type of firearm protection and think it is as secure as one can get providing one wants quick access to the firearm. Otherwise a Gun Safe is in order.

Figure 9



Locks may be ordered Keyed Alike. Come with Two keys

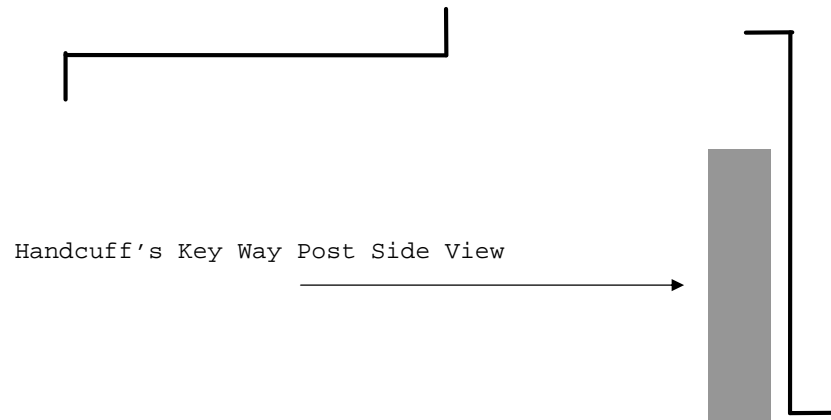
Handcuffs

Handcuffs are fairly simple to Un-Lock without a Key.

If you notice the Key is made for a Ward type Lock. The Key as well as the Lock is very simple in design and construction and only offers limited security.



A womans "Bobbie Pin" will suffice or paper clip with a little bend at the end.



The center post is avoided by the "L" shaped tool as the tool is inserted along side the post.

The tool shown here has two bends. The second small bend gives us a handle in which to operate the tool with.

If the secondary Lock Pin has been pushed in and activated, one must first Pick the secondary Lock Pin free. Again, only if it is activated.

Then Pick the Handcuffs free .

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The Secondary Lock keeps the Handcuff from ratcheting tighter.

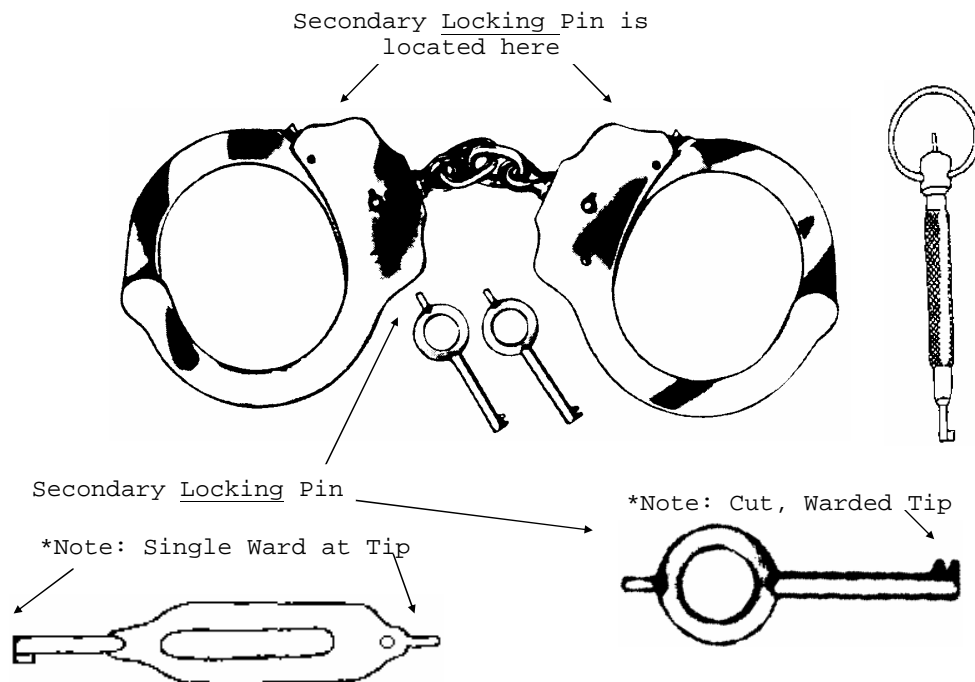
This is to aid in the comfort of the prisoner.

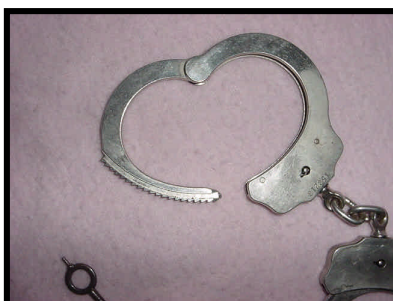
The secondary Pin is Picked free first in the direction of the secondary Locking Pin and then the Handcuff itself is Picked in the other direction.

Once the cuff is Picked, and as, the cuff is being Picked, the pick must be held in that position as the cuff is retracted from its' housing. If it is not held in this position, the cuff will Lock where the pick was released. Therefore, the Picking and holding must continue.

Most handcuff Keys are interchangeable.

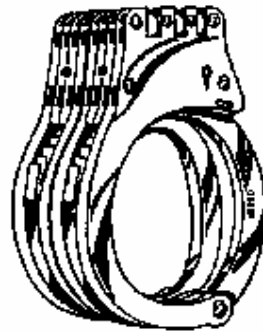
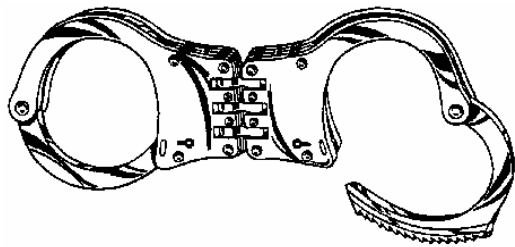
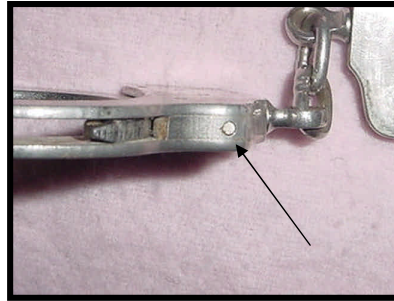
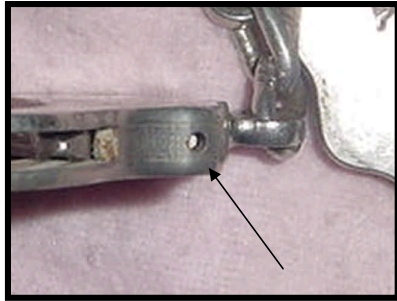
However: there are several different types of Handcuffs and Handcuff Keys available.



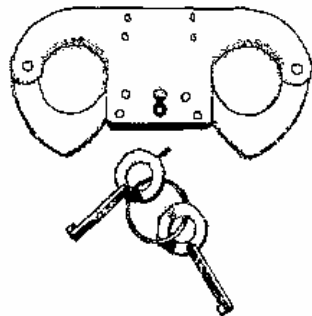


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The secondary Locking Pin is activated by pushing it in with a pointed object, such as the pointy probe type tip located on the handcuff Keys, Key Bow.



I have not had the pleasure of working with thumb cuffs, but I would presume they are piece of cake also.



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Jail Keys

Thursday, June 27, 2002

Today Liz and I had the pleasure of giving an estimate to the county jail for some security Services.

Captain Russell Willis of the Sheriff's Department was kind enough to give us an education. Thank you.

Check out these Keys. Talk about a "Jailers Keys".

Frankly I like this side of the bars.



The Keys are Made of Steel, each Key is about 5" long and they are hefty.

The Keys are specially made and the Keys are unique.



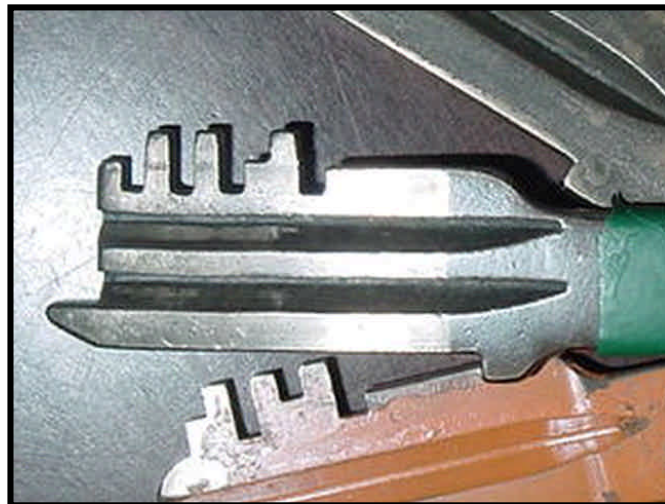
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You can not see the vibrant colors adorning the keys, but the keys are colored. The orange key fits the orange marked door. The Green Key fits the green marked door etc...

Orange, yellow, Green,



The Keys have different Lands and or Grooves on each side.
And of course the Depths of Cut are cut with a Slotted Cutter.



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If you look closely at the Key's Bow you will see notches cut into it. The notches are cut into the bow so as to identify the key in complete darkness if need be. Similar to Brail. This key has 5 notches.



Keys, Keys, Keys,

A prisoner was brought in and
the two women stood behind us.
I wanted to stand behind the
sheriff.

The jail house was a negative
type of place. Maybe a look at
these keys will keep you on the
straight and narrow.



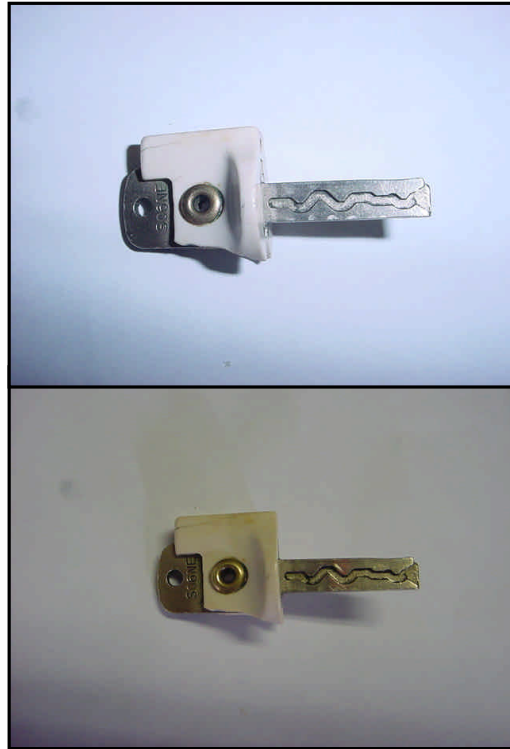
Isn't this cool stuff?

Thank you Captain Russell Willis
you have your hands full.



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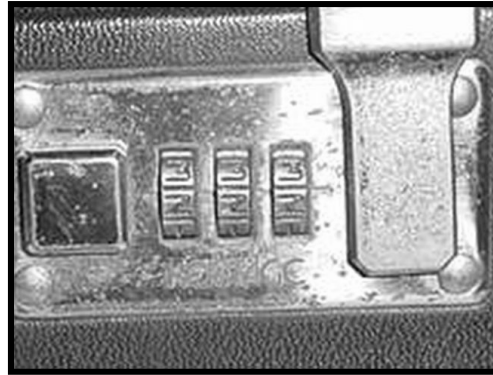
This is a medicine cabinet key for the jail.
Notice the "Side Winder" Cut along the Blade of the Key.



Combination Briefcase



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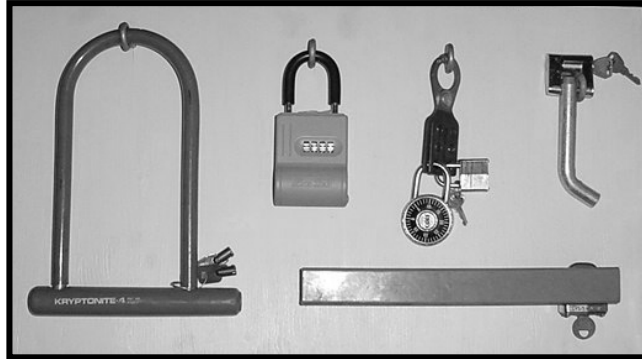
Camera Case Lock

Flat Steel Key



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Lock Display



Kryptonite Bicycle/Motorcycle Lock

A Tubular Key is used to operate this locking device.

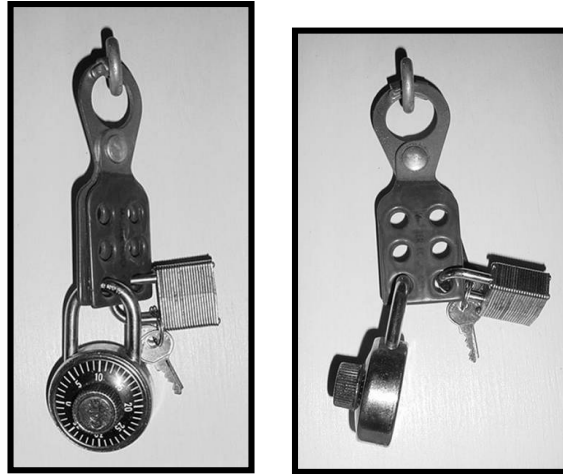


Key Block

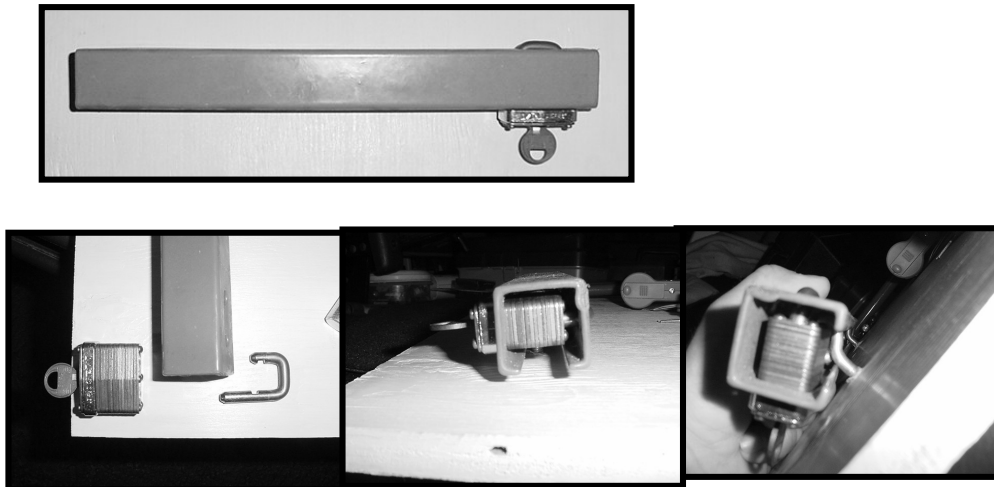


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Lock Out Device



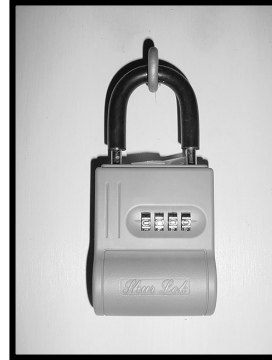
Out Board Motor Lock



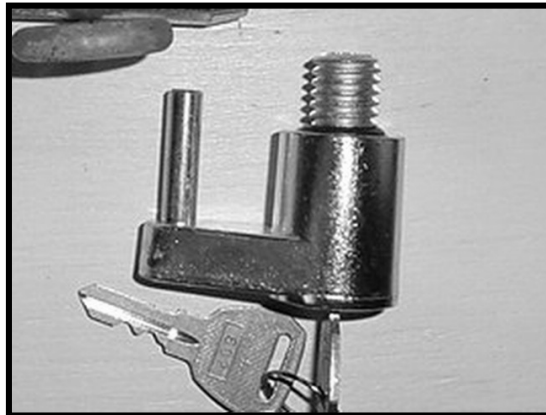
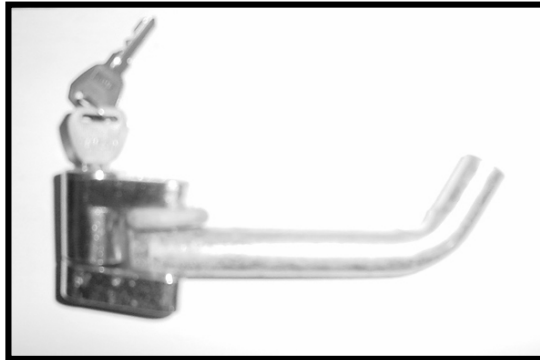
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Lock Inside a Lock

Two Combinations are used. One combination operates the main shackle and the second combination opens the small security compartment.

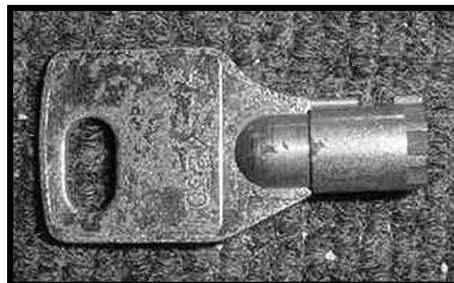
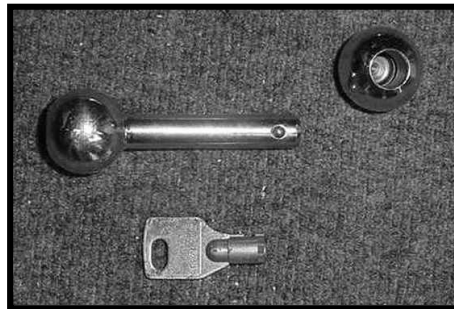


Trailer Hitch Pin Lock



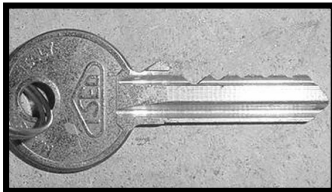
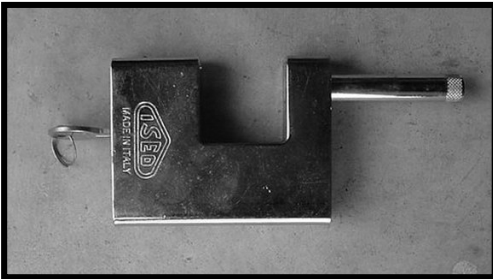
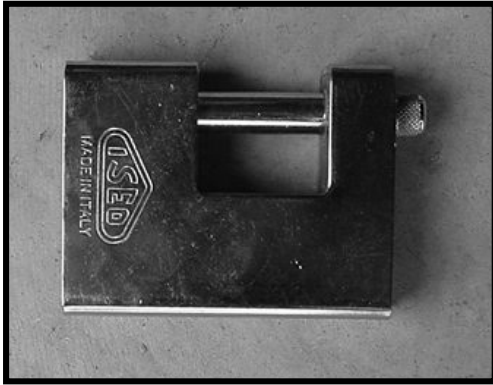
Miscellaneous Locks

Isseo Bar Bell



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Iseo Block Type Lock



Miscellaneous Security Methods

Hiding Places

There are many places to hide things around the home. A few examples would be above hanging lamps, in plant pots, ceiling fans and loads of other great places.

Security Cans

Security Cans are real cans that have been modified to hold your favorite stash. The cans are professionally manufactured from the original cans. Some of the brands of these cans include WD40, Aqua Net, Noxema Shave Cream, Coke and others. The bottom or top screws off. You place your goodies inside and stuff with a rag, so that the contents will not jiggle and rattle. Many Truck Drivers use them for money. Mechanics use them in the shop and so fourth. Be creative!

The center of a book may be hollowed out, and its pages glued together. Imagination is really the limit when it comes to hiding places and being a Global Security Specialist™.

Try never to leave a Key outside but, if this is a must have situation, use a "Hide a Rock." This is a man made rock that looks real. It is a small hollow rock with a hidden door on it. You insert a spare Key and then hide this rock among other real rocks in the garden. You should never just walk over and pick up the rock. Work your way over slowly and act like you are inspecting flowers and so fourth and extract the Key. Slowly make your way toward the door.

Security Cans are real manufacturer's cans that have been modified to hold your favorite stash. The cans are professionally manufactured from the original cans. WD40, Aqua Net, Noxema, Shave Cream, Coke, and others. The bottom or top usually unscrews. You place your valuables to be protected inside and stuff with this with a rag, so that the contents will not jiggle around.

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After a short while, open the door and go in. Do not replace the Key for a spell. You never know who is watching you. And believe me, people do watch you.



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Security Safe Book



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Key Cabinets & Key Control Systems

Key Cabinets are a great organizational tool to secure and keep track of Keys. Usually the Key Cabinet is Lockable in order to keep out un-authorized people. Numbered Key Tags are hooked to the Key.

The numbers and the assigned area are then recorded below on a chart. When a Key is needed the user then places a tag with his or her name and corresponding number in place of the numbered Key Tag. In this way if some one should look for the Key and it is not there, a name-tag will display the user and Key number at a glance.

The user tag may be of a bright color such as yellow, pink, or kelly green. Key control systems may also utilize small zipper cases, brief cases etc.. Portable cases may be carried by the user from home to business or site-to-site.

Landlords and Keys

I personally do not like to give any landlord a Key to anything. Period. There is no reason for them to have a Key to anything of mine. If it is an emergency, then kick the door down. Period.

If it is not an emergency, they should act like an adult and arrange a suitable time for both parties, in which the landlord may gain entry.

Banking Habits

You should not tell anyone that you are going on vacation. Even idle chat to a bank teller could be devastating. Anyone may hear you. The Bank tellers are not bonded. They are everyday people collecting your money. They could tell a boyfriend or acquaintance that you are going on a trip or that you have a certain amount of money in the bank.

Idle chat to their friend saying, "That person over there has big bucks in our bank," can put your life at risk. This places you at risk for trip taking and yes even every day banking. A kidnapping, Hostage situation, Burglary and worse. Be cautious of which banks you do business with and to who sees the numbers in your bank account.

Pocket Books

Always be aware of your pocket book and its location. An acquaintance had her purse stolen right out of her house by someone that was a so called "friend." Be aware. When carrying a Pocket Book, always carry it with the opening facing you, not away.

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Portable Door Alarms

These are okay if you travel and I do suggest to use some sort of protection when you do travel.

If you knew the ratio numbers of Rape, theft, and assaults that occurred in the United State's Hotels, you would give traveling a second thought.

Remember you must replace the batteries in the portable Alarm units.

Hiding Keys

Try never to leave a key outside.

If this is a must have situation, use a "Hide a Rock."

This is a man made rock that looks real. It is a hollow rock with a hidden door on it.

You insert a spare key and then hide this rock among other real rocks outside your residence.

You should never just walk over and pick up the rock. Work your way over slowly and act like you are inspecting flowers and so forth and extract the key nonchalantly. Slowly make your way towards the door.

After a short while, open the door and go in. Do not replace the key for a spell.

You never know who is watching you. Believe me, PEOPLE DO WATCH YOU.

Message Machines

A message on your answering machine should never say, "We are not home right now." or, "We will be back next week." It should say:

"We are unable to come to the phone right now, please leave your name, number and nature of your call."

If possible, you might want a machine that has Remote message retrieval. In this way you can retrieve messages and call the people back as though you were at home or the office going through your messages.

Remember, there is equipment that can bypass and retrieve your private information from your answering machine. The Bad Guy or Bad Gal may retrieve your information, change and or erase any information.

One should be weary of the message machines.

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Money Belt

This is handy to use especially while traveling. The Money Belt can be found in better leather and clothing shops.

The Money Belt is flat, hollow and the inside portion of the belt that faces your body is fitted with a zipper.

Money may be rolled up quite tightly and inserted into the Money Belt. You would place and remove your money, traveler's checks and the like in the privacy of a toilet cubical or perhaps the stall of a fitting room, etcetera.

Case History:

When I was twelve and was traveling around the country, my mother fitted me with a Money Belt.

I not only carried money in it and my wallet, I also carried \$10.00 in my top shirt pocket.

If I was robbed, I was to hand over my wallet and then act as though I was "giving it all up" by saying, "Here, I have another ten bucks in my top pocket." and hand that over also. In this way, I appeared to be very cooperative by handing it all over. Of course the big bucks were still in my Money Belt.

Don't Tread On Me

The owner of a car dealership whom I know, drops shell casings from fired rounds around his hard packed gravel lot. He spruces the place up with a dozen new shell casings a month. People who walk around viewing cars or casing/eyeing the place in order to rob it are forewarned. He also has a sticker on the front edge of his desk which reads **"Gun Control Is Being Able To Hit Your Target"**. A subtle notice, he carries and will shoot you. He is highly insured and you had better be.

Single Women

Single women should only put their last name on the mail box, door bell and telephone listing. Never include your first name. You may leave your address out of the telephone book as well.

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Free Tickets and Prizes

This is an old con game to get the occupants out of a house. Send them free tickets to something they just could not turn down. When they are gone to the concert, ballet, show, etcetera, they are robbed.

This includes public announcements of weddings, funerals and other similar functions placed in News Papers.

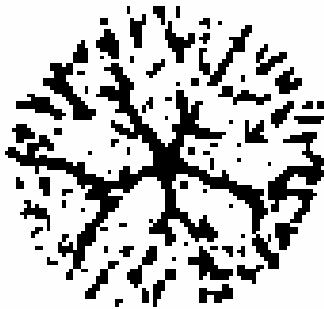
Be aware! This type of announcement placed by an individual invites the criminal.

"We will not be home on this date, come on in."

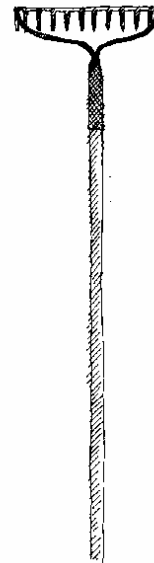
Landscaping for Security

Landscaping is an important part of Security and is often overlooked.

Bushes should be trimmed back away from houses and hiding places exposed.



Trees with limbs over hanging the house or business should be trimmed. If not, care should be taken inside the structure against an intruder "dropping in" so to speak. Example; a P.I.R. placed in the adjacent room.



A door wired as a Trap.

These particular types of entries do happen; I have seen the results.

Planting beds should be kept clean and raked. In this way you will be able to see if anyone has been skulking around your windows and doors. (Investigator at work again!)

Do not leave ladders, dog houses, hammers, tools and other similar objects around outside for a would be thief to use. Don't make their job easy.

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Case History:

That is how the Edison was performed in Holliston Massachusetts. The police used a dog-house to gain illegal entry.

It always bothers me to see people leave shears, knives, picks, shovels, hatchets, and other such dangerous tools which could be used as weapons lying around.

My father used to tell me never leave money lying around on a table. Anyone looking in a window might see it. The person looking through the window would not know if the bills were ones or one thousand dollar bills.

Private Security Patrols may be hired to patrol the outside of the premise at random or with set times.

This is offered at relatively low prices.

Subcontracting these Patrol Services to your Clients may yield great dividends.

Mace

There is a major player in the sales of Security products on the market located high in the north west of the United States of America.

They sell Mace, Stun Guns and the works.

I always wondered about their boasting of the Mace product being legal in almost every state.

Mace is illegal to carry without a firearms permit in the state I am from, Massachusetts.

My sister used to carry Mace without a permit.

She stated one day, "I would rather be Judged By Twelve, Than Carried By Six." What she meant is she would rather carry and use the defensive spray and worry about going to court later, than to not have any defense and be raped, and or killed, and buried.

Stun Guns are not legal at all in the state of Massachusetts.

As for a man or woman carrying Mace on a Key ring it is okay. Chancy, but okay.

As for carrying it in a hand bag, this is the worst place to carry any defensive equipment.

The thief may grab the hand bag and run, thus taking the weapon (gun, Mace, Stun Gun, etc.) with them.

If one still has retained the bag, it is very hard at the moment of need to search in the bag for the Mace, gun etc. Can you imagine having to say to your attacker, "Please wait one moment, I need to find something in my purse."....

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The Mace in the hand bag is as good as lost in the event one needed to find it in a hurry in any circumstance. The thief or attacker is not going to give you the time to rummage through the bag.

The Mace or Stun Gun must be carried in hand ready to use at a moments notice.

The idea of a sharp jabbing tool to stab your attacker with is absurd. (Sold to women).

One would have to be in hand to hand combat to use the jabber. If your attacker is close enough to you to be able to use a jabber or Stun Gun on you, the attacker is just too darn close.

The victim themselves are target to be " jabbed."

Most people would not be able to handle this type of close combat, defensive equipment, or attack.

The weapon would be removed from the victim and serious and deadly consequences could arise.

Stabbed by their own jabber.

Most individuals would need to be trained for confidence and correct defensive equipment use.

If you can touch them with a Stun Gun they can slice you with a knife.

Mace is your best bet if it is legal to carry where the person resides.

You can spray it from some distance away, which helps.

Mace has to be kept at body temperature. I know this for a fact. It freezes and will not spray.

It is a disappointment trust me.

If you carry it in your top pocket, this seems to be the best bet.

However, you should pull it out and carry it in hand warming it ahead of time. Your attacker is not going to let you unzip your coat, reach in, and draw your weapon.

My father used to carry a Snub Nose 38, in his over coat pocket, with his hand on the gun as he walked.

He told m an assailant was not going to let him open his coat and reach inside.

**The person should have some training
with the defensive equipment they are going to use.**

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Variables Matter with Mace

- Wind is a variable with Mace.
- Rain is a variable with Mace.
- Age of the Mace.
- Mace must be replaced regularly.
- Freezing if not kept at body temperature.
- A test spraying for distance and pattern.
- Common sense.

These variables and more are not mentioned, thus the person has a False Sense Of Security.

Stun Guns are yet another issue.

The Mace or any weapon should be maintained and checked for correct operation.

Case History:

One day when Liz was out on her daily power walk, she was attacked by a dog with a bad attitude.

Although most animals, as well as people, may be a friend, this stranger (the dog) was unknown to Liz.

The nasty animal was biting and snapping at her legs. Liz had been walking with her Mace in hand and brought the defense weapon up to protect herself.

Liz pressed the fire button.

Nothing happened. Again she pressed the button. Again nothing happened.

The owner was now calling the dog away from Liz.

Liz was lucky this time. There are lessons to be learned.

Liz has the Following Words of Advice

- Maintain your equipment at all times.
- Have high standards.
- Always have a second or third defense plan as back up.
- A bent knee, kick, or knee kick combination executed correctly usually works.
- Try to get higher than the attacker. Stand on the hood of a car or the bed of a pick up truck etc... Kick, bite and scratch if need be. James Bond would.
- Keep your wits about you and do not panic.
- If it is a man, scream at the top of your lungs, "I don't know this man!!!!!!!" Hopefully someone will hear you.

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The Stun Gun, Mace etc... Should be checked periodically and cleaned from debris. The batteries should be changed frequently and the Mace, Stun Gun or other defense weapon tested frequently. When it is time to replace the unit, replace the unit.

A small ten-dollar investment for several more months of Security. It could make the difference between Life and Death.

Remember; it could be, Your Life On The Line

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Stun Guns

The Stun Gun shown here has a whack of 120,000 kilovolts.

The unit fits in a case similar to a camera. It has a belt clip and carry strap. The stun gun's whack releases the bodies sugar thus creating a small seizure in the person.



One side of the unit has an on/off switch and the other side has the trigger.



Message Machines

A message on your answering machine should never say, "We are not home right now" or, "We will be back next week." It should say:

"We are unable to come to the phone right now, please leave your name number and nature of call."

If possible, you might want a machine that has remote message retrieval.

In this way you can retrieve messages and call the people back as though you were at home or the office going through your messages.

Multi Protection Bar

This is a bar that is easily installed on desks and file cabinets and is fitted with a pad Lock. Usually a Re-Combinatable Padlock.

The multi protection bar when in place and Locked prevents opening of the drawers. I have used this type of bar in offices where many people need access. The Combinations of all the Re-Combinatable Padlocks may be set to the same Combination for easy access. Yet the Locks may be Re-Combined upon the dismissal of an employee and Security maintained. These Multi Protection Bars may be installed within minutes and good money made.

Paint & Putty

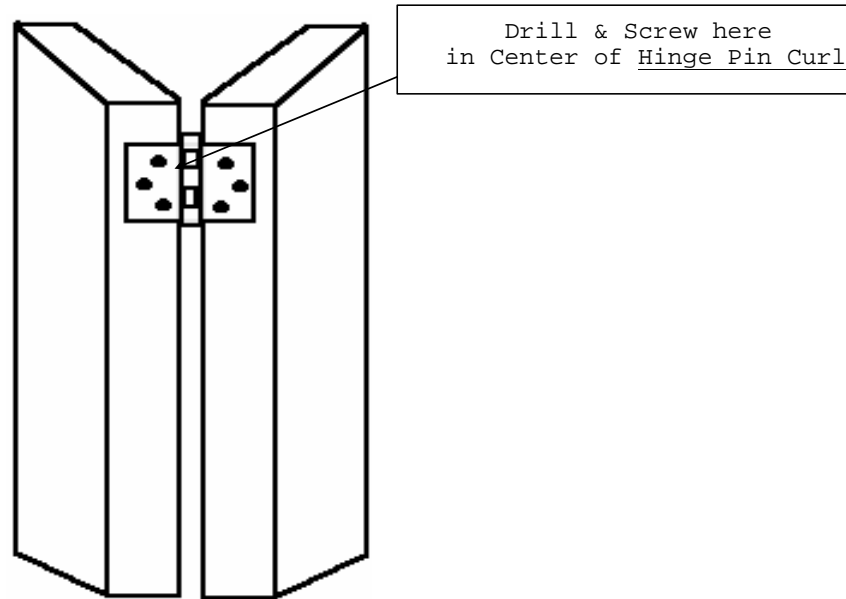
White paint of different shades may be purchased at the hardware store. The crayon type putty sticks work great. They come in a variety of wood colors. Maple, walnut, oak etc...

They can help camouflage small nicks or scratches on doors if needed.

Securing a Hinged Door

Securing a Hinged Door Technique #1

Doors that have external hinges may be secured and kept from being removed completely from the door frame.



If you were to try and remove a door with external hinges, you would first try and remove the Hinge Pins from the hinges. To do this you need to use a punch. You would drive the Hinge Pin out of the hinge usually from the bottom.

Many Industrial / Commercial steel doors have hinges on the outside.

The Hinge Pins are retained by an Alan screw inserted when the door is open.

After the Hinge Pins are removed, the door may then be pried out of the frame.

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To Help Prevent This From Happening:

Open the door thus exposing the inside of the hinge. You would then drill a hole through one of the Hinge Pin Curls and into the Hinge Pin itself. Half way through the Hinge Pin will suffice. Do not move the door. If you do, it could miss-align the holes. With the door still open, drive (screw) a long enough sheet metal screw into the Hinge Pin curl and deep into the pre-drilled hole in the Hinge Pin.

Grind off the head of the screw so it is flush with the Hinge Pin curl so you may be able to close the door.

You would do this to each of the hinges on the door. The project takes about two minutes per hinge.

This makes the Hinge Pins harder to remove by punch.

Remember, once this procedure has been completed, you will have difficulty removing the Hinge Pins at a later date.

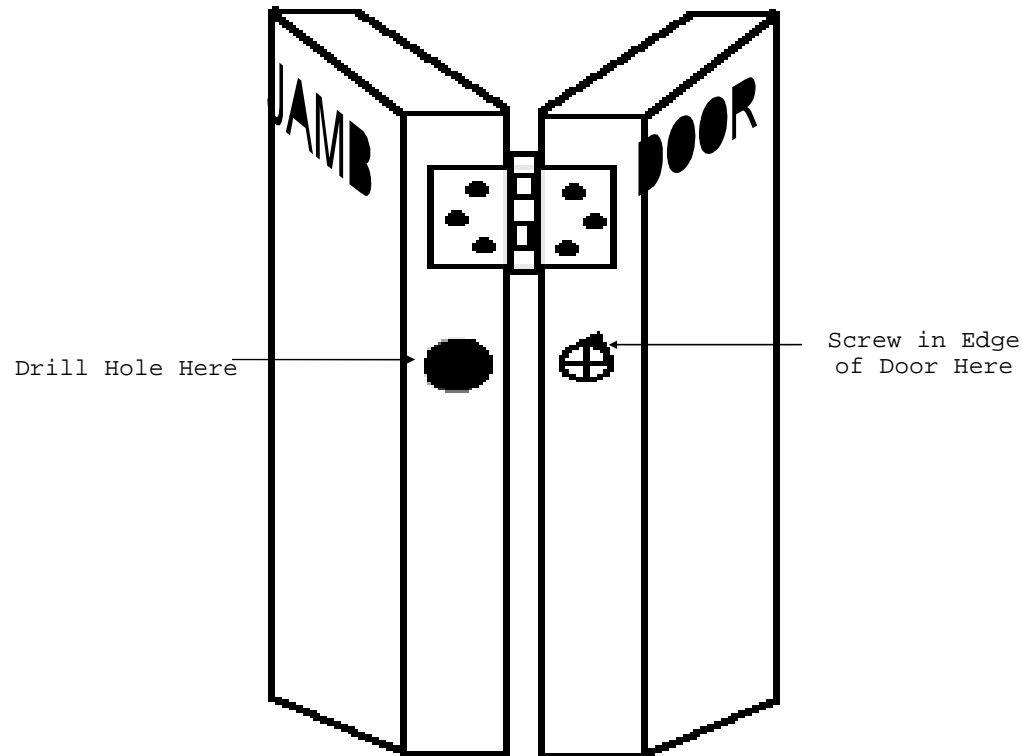
If this does happen, center punch the screw and drill out the screw with a slightly larger drill bit than the diameter of the screw.

If you ever run into one of these Hinge Pin securing techniques, use a center punch first on the bottom of the Hinge Pin. Then drive the stubborn Hinge Pin out with some muscle. This method should Shear off the sheet metal / Allan screw and drive the Hinge Pin out without damaging the hinge or Hinge Pin in any way.

Remember, if you can do it so can the bad guy or gal.

In other words this method can be defeated. However, the perpetrator would have to know the Pin was capable of being sheared off.

Securing a Hinged Door Technique # II



Opening the door, and on the edge of the door that comes in contact with the jamb, you would drive in a screw.

However, you would not drive the screw into the door edge completely. Leaving the screw sticking out from the door edge at least a quarter inch to half an inch. Gently close the door so as to lightly mark the jamb with the screw head.

Where the door jamb has been marked by the screw head, you would then drill a hole large enough for the head of the screw to fit into and deep enough to accommodate the length of the screw that you left protruding from the door edge (a half an inch protruding).

Drill and place two or three of these on the edge of the door.

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If someone should drive the Hinge Pins out, with the door Locked, this will prevent removal of the door.

Another way to secure a hinge is to remove two opposing hinge screws. Tap a ten penny nail into one of the holes leaving about 1/2" exposed. Cut the head off with a hack saw.

Tip:

When working with a door frame.

Wooden door frames require a 3" #10 Wood screw to extend deep enough to grab a stud.

I prefer Phillips Head screws rather than flat heads, which will allow the screw driver to slip off and injure you.

Securing a Sliding Door

Sliding Doors

Make sure sliding doors are installed correctly. Many of them are installed inside out.

The sliding door should track on the inside. If you can remove the door from the track by lifting it from the outside, it is installed inside out.

To make the sliding door more secure;

- Drill Pilot Holes into the overhead sliding door track. 11/64" Drill Bit. Holes 10" apart.
- Then insert at least 1 1/2" #12 screws into the overhead track. You will need to adjust the screws in order to prevent the door from being lifted in the track, yet allow the door to slide freely and not interfere with the smooth sliding motion.

Securing a Sliding Door Technique I

After the physical, visual Security deterrents have been installed on the wood or steel exterior doors, you can now move on to the glass sliding doors.

Sliding doors are a challenge in themselves.

They are mounted on many different settings. Examples are ground level, inside, outside, balconies, basements, offices and more

If you look at a sliding door from the outside and the door slides in a track on the outside, the door is installed inside out. This is incorrect!

If this is the case, try and see if you can remove the sliding glass door from its' track on the outside.

Grabbing the door on either edge lift the door out of its' track. Be aware the door is very heavy.

This should only be accomplished from the inside with the door Un-Locked.

I have seen many, many, many doors installed wrong. If the door is installed inside out it is usually a major job to change it around and this should be done by a competent builder.

You cannot mount a Charlie Bar if this is the case.

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If you do run into an incorrectly installed sliding glass door which may be removed from its track, from outside, it is possible to secure the door a little more by the following method:

Slide the door open. Where the door would rest normally closed in the track, drive some long meaty type 4" to 6" screws into pre-drilled Pilot Holes along the upper track. I usually use the "Meat" (reinforcement) screws that come with Schlage type Deadbolt Locks.

Make sure they grab the "Meat" of the wooden framing.

The hardware store is always an important resource for the Global Security Specialist™.

No Meat, No Eat

These screws are driven into the framework of the house, along and inside the door jamb track at the top of the door jamb.

To Install:

Open the sliding glass door.

Starting closest to the sliding door itself while it is open, drive the meat screws leaving a small portion of them protruding. Slide the door over the screw. If the door clears the screw turn the screw out so the door just grazes it and then turn it back in slightly.. If the door hits the screw, turn the screw in until the door just clears it.

Proceed in this manner with each screw in the sliding door track. Five or six evenly spaced screws should do it.

Check the top of the door itself for a deep groove running down its' frame. Should this be the case, try fitting some wood strips or strapping to space the distance to the screw.

Should someone try to remove the door from the track, the screws will prevent this from happening.

When you do run across this inside out door routine (and you will run across this), go outside and ask the client to close the sliding door and Lock it. Go outside and Grab the door and lift up on the door Un-Locking the door and gently move the door away from its strike. Remember the glass door is extremely heavy. Be careful.

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Sliding Door Experience

Case History:

My first experience discovering that a door track was mounted on the outside, was quite an experience.

I was Tightening Up a Premise, after a domestic violence case.

I was showing the lady of the house the vulnerability of her sliding glass deck door. The sliding glass door was Locked and in its track.

I grabbed the door wrenching it up and out of the track.

Suddenly, I went backward into the darkness, off the deck, carrying a two hundred pound glass door with me. On top of me.

The old Yew planted beneath the back deck broke my fall as I went down into a deep, deep, dug dog hole. I was still carrying the two hundred pound glass door.

After I scrapped the dog waste from my shoes, I carried the two hundred pound unbroken glass door back up the stairs to the deck and explained how the bad guy or gal could do this too.

Of course they would do it with more finesse. All of us laughed.

Charge per drilled screw and don't be shy about it.

Securing A Sliding Door Technique II

"Charlie Bars"

Sliding doors should have Charlie Bars installed on them. A Charlie Bar is a decorative aluminum functioning Security bar which is mounted about half way up the door frame on the inside of the sliding doors free space. The bars come in White, Silver and Duronotic (brown). When in use, the bar is swung down in place so it is across the face of the fixed door. The end of the Charlie Bar is placed in its holder on the edge of the sliding door preventing the door from sliding open.

In addition to being a great Security Device, the Charlie Bar also provides Security against children going out a glass door unsupervised.

To install a Charlie Bar correctly:
Make sure the door is shut completely. Tight, no question.

Normal mounting height for the bar is around the height of the handle.

I found the easiest way to fit the Charlie Bar to the door was to use the bar itself. Open the hinge up on the end of the bar and hold this end against the wall frame.

Hold the hinge flat as though you were going to fasten it, but don't.

You will find the Bar is too long when it is across the door, when at the "level" location it will be in, while in the Locked position. This is all right. It will be cut to fit later.

Swing the bar up and make sure it has clearance to swing all the way up and not hit the top of the doors track. If it does hit the track, lower the bar down until the tip of the bar clears the top of the frame. It may be necessary to cut extra off of the bar to complete the upward swing.

Swing the bar down so it is "level" across the opening again.

If the Bar is level with the handle and hits the top of the door when it is swung up, it will be necessary to cut the Charlie Bar. (Later)

Where the bar overlaps the outside edge of the door frame (when "level"), where the bar mount will be, mark the bar with a sharp pointed object. Use your awl type pick tool for this.

Measure back about 3/8" or a little less from the mark which was just made on the bar . This is where you will cut.

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I mount the bar in a vice with a cloth wrapped around it so it will not get scratched.

I then use a hacksaw and cut the Charlie Bar to the correct length.

Mount the hinge side of the bar at the correct swing height as discussed

Place the mounting bracket at the cut end of the bar against the sliding glass door frame. Using your torpedo level on top of the bar, sliding glass door frame, with the bar cradled inside the mounting bracket, level the bar and mounting bracket. If the Bar is still a bit to long, remove the bar and either re-cut with the hacksaw or use a file to tack some of the length off of the bar.

Fit the hinge and Bar to the door again. Re-mount the hinge.

Mark the lower hole on the mounting bracket with your scribe awl tool.

Screw the mounting bracket to the frame. If the frame is aluminum or steel a Pilot Hole or Self Tapping Screw may be in order. Check your "Bar Level" again.

The safety Pin and chain are attached with the upper screw on the mounting bracket. The plastic cap is then mounted on the end of the cut bar to protect the end user against cuts. If the bar is too long, remove the protective cap and either file or cut a little off at a time to get the bar fitted correctly for proper operation.

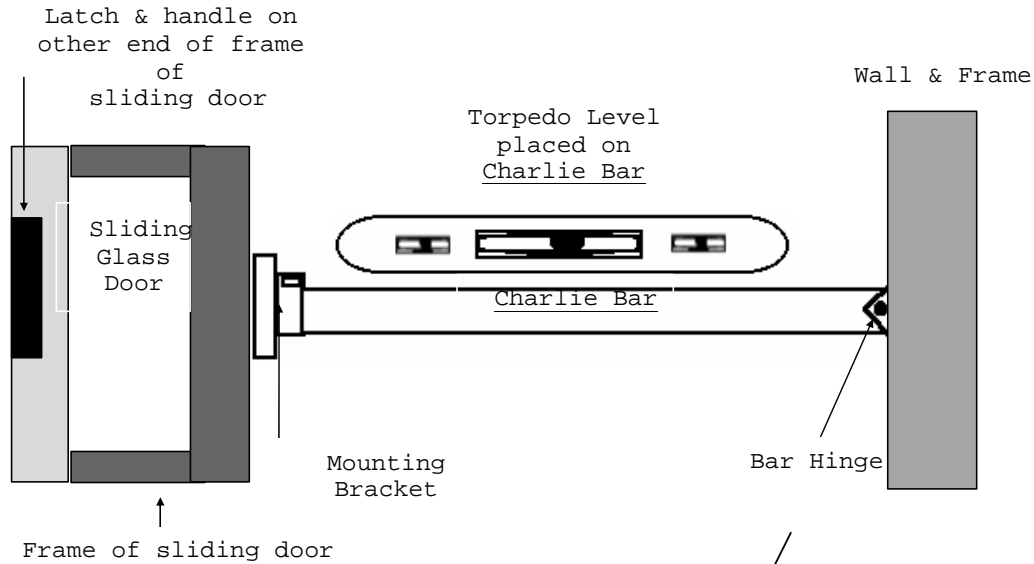
You will find removing the bar and mounting it in a vice, will save you time and aggravation.

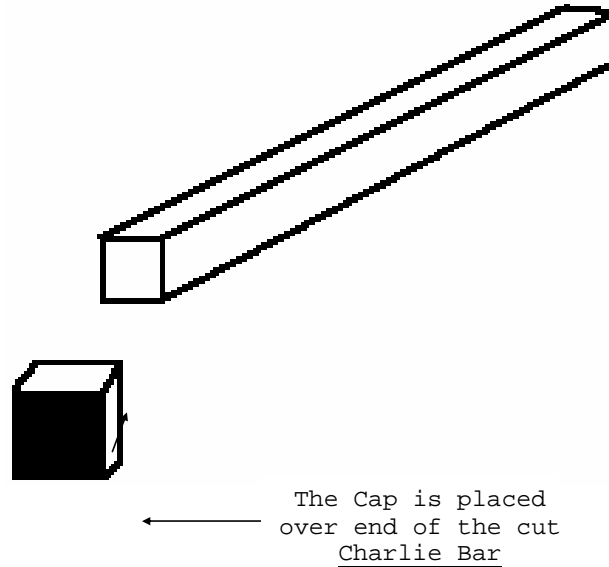
Experience will dictate what, when and if to cut or file.

After the bar is installed correctly, the only way through the area is to break the glass. Charlies work great !

The Charlie Bar

Our Door as viewed below has been scaled down in order to conserve space.





The Bars are usually sold as a complete kit with instructions





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Police Cruiser Shotgun Racks and other Firearm Retaining Devices

I have found most of these firearm retaining devices located in police cruisers may be Picked in short time and most of the Locks are of very simple construction. Many are Keyed Alike.

If Impressioning a Key is desired, one may do so quickly without hassle.

I would try a CG16 or similar Key to get started.

Don't forget by rapping the side of the Lock with a plastic or brass mallet, block of wood or other similar object, Roll Pins may be seen.

A flaw in many Locks. You would be surprised.

The Roll Pin then has a small hole drilled right beside the Roll Pin with a cordless drill (1/8" bit) and a dentist type probe or awl is used to pry out the Roll Pin.

The Lock should come out of the Shell and the firearm restraint neutralized.

Ford Police Vehicle

The Trunk Lock of the Ford Police Vehicle as in other Fords utilizes the old Ford Five Pin Trunk Lock and may be bypassed several ways.

Drilled, Impressioned or Picked. A Pick Gun may be used although damage to the Lock may result. The Lock will be opened.

Each method is fairly simple and the Ford Five Pin Trunk Locks are compromised in very short time.

If an Electric Trunk Release is utilized, then I would suggest using JCII's Electric Trunk Bypass method.

Never be intimidated by any Lock. No matter where it is encountered. All Locks may be compromised.

Read the Wafers if need be.

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Going on Vacation

When you go on vacation it is in your best interest to tell no one. Do not mention it at the bank or even to casual acquaintances. People have been robbed of everything in this very way. People overhear. One bank teller just chatting with another who tells a friend and so fourth.

Have the post office hold your mail, but do not say why. Do not tell the police you are leaving town. Again another culprit of robberies. Yes, the police.

Our own home and business was broken into by the police.

Trust no one !

Use timers to turn off lights automatically or use inexpensive Home Automation.

Have a stereo play music several hours a day and or have a television turn on and off. Don't forget to leave the volume a little high. In this way, should anyone listen from outside they will be surprised.

Leave the garage overhead door shut and Locked. No one will be able to tell if you are home or not.

Dust and leaves on vehicles left outside are tell tale signs no one is using them. So is dried grass on the lawn, an uncut lawn or an unplowed snow drive.

Utilize water timers to water your lawn any time to give your property the, "We are at home look."

Home Automation is here to stay. You should get in on it while you can.

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Vehicle Crook Locks

Basically these Locking devices are all the same. They hook around the steering wheel and break pedal or other similar method of attachment.

Do not be intimidated by their large and scary looks. Each one may basically be compromised by whacking the side of the Lock area with a sharp blow. When this is done once or several times, more often than not, the appearance of a rivet will come forth. This is true with some Padlocks also.

Drill a small hole beside this Pin or rivet and use a sharp Probe to jab and pry this Pin out. When the Pin is removed the Lock Plug (usually a Wafer Lock) will pop out into your hand. A piece of cake.

The whole process takes about three minutes on a slow day.

You may Impression a Key and or Pick the Lock if you so desire to compromise this Security device.

Actually very simple devices to work on.

They fool the public and the companies make big, big bucks on them. \$\$\$.

The vehicle Security crook Locks which have Stun Gun juice flowing and snapping and cracking about them, are of very little resistance them selves.

Just be careful, that is all. Above all else, use common sense.

If damaging the unit is of no concern, climb into the back seat of the car with rubber soled shoes kick the heck out of the unit. It will yield.

Types of Crime and Crime Prevention

The word criminal usually brings to mind a thug with a gun or a masked bandit breaking into ones home. However, this is not necessarily the case. Criminals come in all shapes, forms and sizes.

Anyone who drinks and drives, exceeds posted speed limits, "fixes" traffic tickets, commits perjury, (as President Clinton did or Forsythe©) or accepts sexual favors to reduce criminal sentences (An Edison©), are in fact criminals.

The crimes in a community may be committed by the "professionals" as well. This is called "White Collar Crime". White Collar crime in the U.S.A. has become an epidemic.

Statistics say that one out of every three households has been a victim of White Collar Crime.

What is White Collar Crime? The Master Locksmith security Encyclopedia Set© Dictionary© Describes White Collar Crime as;

White Collar Crime (PI) -

a crime committed without the use of a gun. When fraud or theft is committed, a transfer of assets takes place from the victim to the criminal. If the alleged thief sells the stolen item to a third party for its value, the transfer is still carried out from the victim to the criminal. The individual purchasing the merchandise is only making a monetary transaction for an asset. In terms of fraud, experts contend the numbers are high and mixed. Fraud is categorized as a white collar crime. There are varying classifications of fraud that include: occupational, health insurance, financial institution, mail, property/casualty insurance and telecommunications fraud, as well as unpaid taxes and business theft.

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An attorney taking money to render work and not performing it.
Embezzlement and or the misappropriation of company funds.

No matter who commits the crime, it is done for personal gain and or monetary gain.

Everyone is affected at one point or another in their life by crime. Physical assault, vandalism, burglary, and rape are a few of the heinous crimes committed.

Some criminals want to be caught. Subconsciously. This type of criminal tends to leave clues behind to lead to their capture.

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Some criminals have been known to drop their wallets or other means of identification at the crime scene. In 1999 in Tennessee, one robber made himself a lunch in a victim's home, and fell asleep in the victim's living room, on the couch. Needless to say this thief was caught.

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Most crimes are solved by citizens calling in on a would be thief or seeing and identifying a criminal in a crowd, etcetera. The police solve very few, if any, crimes without the help of citizens. Usually, as in most of the time, the police are called after the fact, and are in a sense glorified insurance investigators. Only writing down what happened or what was stolen for their or the insurance companies record. Most criminals are not caught and stolen items rarely are recovered.

It is therefore necessary for the average citizen to be aware and to help protect them_selves before anything happens. As an older saying reads, "An ounce of medicine is worth a pound of cure."

Robbery Types

There are several types of Home and Business Burglaries. My encounters over the many years have sharpened my Investigative skills.

Thus the following are my own in house terminologies for describing a type of Robbery Crime Scene;

The Hit and Run© and or the Slash & Smash©, or Smash and Grab©

This is when the thugs break in and steal the grocery money, FM kitchen radio, camera, and other small items. They might ransack the place going from room to room. They get in and they get out. They Hit and Run. They may slash the couch, smash the glass living room table. Punk type behavior. You must be aware that they are probably on foot and local. They can not carry much and the items stolen must be on a smaller scale versus a computer and monitor for example. The local area and bushes should be checked for paths and trails. Fire escapes and nooks and crannies should be investigated as well.

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The Drive Through Robbery©

The culprits came with a vehicle and have taken larger items. The television, VCR, Computer, etcetera. You probably were Cased and you should be aware of this, especially a woman. I knew of a Drive through Robbery where they stayed in the victim's house for the weekend.

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Stalking Hit Robbery©

Example: The thief noticed you were wearing a diamond ring and watched you get in your car. The thief then went to the Government's Registry of Motor Vehicles and for \$3.00 ran your vehicles license plate. Maybe they simply followed the Target home. The thief now knows who you are and where you live. Most women remove jewelry in the Master Bedroom or Bathroom. The bottom line is, they know somewhere in that house, is that ring and maybe more.

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Easy Pickings Robbery©

This is a Robbery in which the perpetrator knows the victim. Either a Family member or an Employee or Business Partner etc.... A very dangerous type Robbery, because the Robber knows everything about the victim. The Robbery will be done exactly at the most opportune time for the Robber. The Robber will be very direct to what they take. Usually; Money, Jewelry and or Drugs. The Robbery is so direct in some cases that the perpetrator will perform small acts of vandalism in a feeble attempt to lead the Investigators thoughts elsewhere as though it is a "HIT and RUN". As though a "Punk" had performed all of the vandalism (stamping the wall, smashing something etc...) in a malicious act. And making the scene look as though they just stumbled across the "Locked File Cabinet and Goodies". Things are not as they appear to be.

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Easy Pickings Return Robbery©

This is when the Robber has performed an Easy Pickings Robbery© and returns to the last "Easy Pickings" for more, and one more. Jackles. Many times the Robber will return; again, and again, and again. Internal problems such as; the lack of those responsible for adding Security Precautions, Poor or Lacking Cooperation, Poor Information and or Communication, Poor suggestions of added Security, the same type of Robbery Happens again and again. All of the Victims should be upset that they were violated. Even employees of a business are usually disgusted that this terrible thing "Crime" has occurred. Those who are not really concerned and or continue to perform the same Jewelry handling or cash handling job should be scrutinized. I would look at the last person who has handled the money or someone they know or who knows the system. This is a great place for Long Time Video. They will come back for more. Trust me. They are Pirates and parasites.

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There are other types of robberies, but these tend to be the cases that I run into the most.

At the time of this particular writing some of these encounters may be found in my Master Locksmith Encyclopedia Set© Private Eye©.

In each instance, the robbers had some kind of knowledge of their victim. Very rarely is a house or business just hit randomly. They may be, but not as frequent as the ones "Who Know You Robberies".

It happens, but it is rare.

Parties at your home are difficult to control because of people coming and going. If something is taken, the odds of knowing who stole the item are very slim unless you actually caught the thief yourself. Pin Hole Cameras and Spy Cameras (Clock, Radio, Pencil Sharpener...) placed in strategic places are great.

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The crooks mentioned previously, may certainly have come from out of town, but they had knowledge of their target.

Thieves do not like dead end roads with only one way out, unless they are on foot. If they are on foot they must be local. Burglars tend to like streets that have several intersections or at least one near by.

That way no one knows which way the robbers went. After a Robbery I would suggest walking around, look at things and just Investigate. Be nosey.

The time of day the burglars seem to favor is usually between 9 A.M. to 3 P.M.

Some states impose stiffer penalties when a crime is committed by the cover of darkness.

The burglar has usually been around the neighborhood looking at the approach and which houses look good for the best yield. The robber has most likely planned an escape route as well.

Nice looking cars. The clothes the occupants wear. Any sporting goods carried in or out. The crook will "Case the Place." Any Deadbolts, Lights, Yard Alarm Signs, Alarm Stickers on doors, Dogs, traffic coming and going are certainly good deterrents. The phone line placement for the burglar to cut will be on the target list as well.

Any dogs will be brought a treat or a sleeping pill placed in meat.

There even may have been a robbery committed weeks before elsewhere in a nearby neighborhood in order for the thief to time the response of the local police.

Phone calls may be made to a Target house to determine if anyone is inside.

If you receive hang up phone calls, use it to your advantage. Let it be as though the person hanging up is reminding you to check **ALL** your Security measures. Inside and out.

A serious prowler will not fool around. They should be feared. They have been watching the victim.

Stalking. An "Easy Pickings".

The Bad Guy or Bad Gal might carry a tool of some kind for destroying what ever theft deterrents they plan on by-passing. They might plan on acquiring a tool they saw at the premise or they know is there. It always bothers me to see hatchets, hammers and the sort left about people's yards.

Someone could get hurt.

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A door or window that is obscured from the street or any neighbors is usually the target. Fences and bushes will keep the sound of breaking glass to a minimum.

A person sporting a size 9 shoe or larger can level most doors with a single kick.

Thus the need for 1" (one inch) throw Deadbolts.

What the robber takes or does not take can tell you a lot.

Things taken or not taken identify the characteristics and personality of the thief.

Most men do not know women's clothing, so when a woman tells me that women's clothes are missing it usually indicates that a woman was involved somehow. The more selective of the garments taken, the more it points to a woman was present. This does not include jewelry.

It is a strictly "clothes thing".

Calculating the Cost of Crime

A recent study estimates the aggregate burden of crime is 1.7 trillion. The report also sheds light on the "Domino Effect" of crime from the moment a burglar cracks open a window to the "Lost productivity" of society spent deterring theft. Study suggests that the \$32.2 billion alarm industry as well as all other protective industries, are wasted productivity.

When you listen each night to the local newscast or open a newspaper, there is usually a report about some form of crime being committed.

Whether its town, city or state, no place is immune to such crimes as robberies, drive-by shootings, homicides, burglaries or rape. The average citizen may be empathetic towards a crime victim; however, is he or she really susceptible to long term effects? The answer is "Yes" to the tune of \$4,118 apiece, according to a recent study on the "domino effect of crime. "The aggregate burden of crime", sturdy by David A. Anderson from the University of Chicago calculates the total public-and private-sector expenditures on combating crime on an annual basis. The study, published in the October 1999 Journal of Law and Economics, sheds light on this domino effect that ultimately influences those living in the United States.

Each year, criminals seize about \$603 Billion in assets from victims and produce more than \$1.1 Billion in lost productivity, crime-related expenses and forsaken quality of life. Ultimately, the aggregate "Cost of Crime" is more than \$1.7 Trillion in the United States each year, says the study.

Why so high? Anderson concludes that crime is not just the cost of lost goods, such as credit cards, stereos, jewelry and cash. The total cost of crime also includes the lost productivity in society that comes from spending time preventing crime, whether that means taking time to Lock your door or to punch in your Alarm System Code.

Moreover, the study believes the real; cost of crime includes entire industries. Using Anderson's logic, the entire \$32.2 Billion Electronic Security Industry is a waste of time and money. However, society's burden from crime also presents a strong case for Alarm Dealers and Locksmith's to use during sales presentations. The next time a prospect's objection is that "Crime does not affect me," you can quickly reply that "Crime affects everyone." To make his case, Anderson dissects the effects of crime into four categories: Crime-Induced Production; Opportunity Costs; The Value of Risks to Life and Health; and Transfers. These categories break down the costs and help citizens understand that crime ultimately hits everyone in their pockets.

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Crime Rates Declined in Early of 1999

From the moment a crime is committed, it becomes everyone's burden, especially when your taxes pay to send that criminal through the justice system and perhaps onto county, state or federal prison. That's just the public sector expenditures. What about the private sector expenditures? To measure the private sector costs of crime in the United States, many legal analysts and scholars have relied on FBI Uniform Crime Report and Crime Index as a form of reference. Anderson notes in the "Aggregate Burden of Crime" report that numerous studies have estimated the impact of crime; however, none have adequately assessed the indirect costs of crime and the critical significance of private crime prevention expenditures. The FBI Crime Index data includes the number of criminal acts based on the types of crimes committed. Such crimes include murder, rape, robbery, aggravated assault, burglary, larceny, motor vehicle theft and arson.

"About \$18 Billion is spent on Guard Service" U.S. Census Bureau

It is Important to note that the Crime Index is simply a count of crimes and does not attempt to place emphasis on various criminal conduct based on adversity. According to the FBI Uniform Crime Report, the first six months of 1999 resulted in a 10-percent decrease in the number of Crime Index offenses when compared to the same period during 1998 (See Table 1).

Violent crime, forcible rape and larceny-theft all dropped by 8 percent. The report also reveals that burglary decreased by 14 percent, while motor vehicle theft fell by 12 percent. These **figures** reflect crimes reported in metropolitan areas, suburban and rural communities as well as cities outside of metropolitan areas.

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Cause and Effect Lead to Crime-Induced Costs

Products and services designed to deter crime account for Crime-Induced Production. For example, the manufacturing of personal protection devices, trafficking of drugs and operation of correctional facilities occur as a result of crime. According to the study, crime-induced production amounts to about \$400 Billion in expenditures each year (See Table 2). If crime was non existent, the time, money and material resources incurred by these types of goods and services could be utilized toward benefits rather than means of prevention.

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For example, approximately \$32.2 Billion annually is spent on Security Equipment and Services. Anderson suggests that predetermined gains from these alternatives exemplify a real cost of crime in society. These costs are broken down in the millions, and distributed among 27 areas. Amid the most costly areas are drug trafficking, prenatal exposure to cocaine and heroine, police protection, and corrections. The report also estimates the annual expenditures for cost of personal and household crime to U.S. victims is \$113 Billion. In terms of rape, robbery, and assault, experts estimate the effect to be \$182 billion annually.

War on Drugs Proves Costly to the Tax Payer

The President's Commission on Organized Crime surmises that more than \$160 Billion in annual expenditures is attributed to drug trafficking. Each year, however, an estimated \$26.7 Billion and \$1.5 Billion in expenditures are caused from prenatal drug exposure to cocaine and heroine. Approximately \$11 Billion is allocated toward Federal, state and Local drug control efforts (e.g., drug treatment, education, interdiction, research, intelligence). Therefore, drug-related activities actually total nearly \$200 Billion annually.

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Adding Costs in the United State, Federal Judicial System

Police protection is the next most expensive type of crime-induced production. More than \$47 Billion is devoted toward serving and protecting citizens. Approximately 682,000 police and 17,000 federal, state, specialized (park, transit or county) and local police agencies make up that figure. The need for private guards has also added to the cost incurred in crime-reduced production. Each year, about \$18 Billion is spent on guard services, according to the U.S. Census Bureau. These services include detective, guard, armored car and security services. Out of 867,000 guards in the United States, 55 percent are employed by private security guard agencies, while 45 percent are in-house employed. Guards of correctional institutions are not counted into that figure. The cost for taking offenders through the judicial system each year is more than \$18 Billion. There are 895 federal and state prisons, 3,019 jails and 1,091 state, county and local juvenile detention centers.

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Realizing the Price Paid for Peace of Mind

The report suggests that the fear of crime has prompted Americans to spend \$324 Million annually on Non-Lethal weaponry, including defensive sprays and stun guns. In 1993, 32 percent of new homes were built with Alarm Systems and Alarm Sales reached \$6.5 Billion. Security Industry experts estimate that residential security alone is a \$5.4 Billion market.

The approximate life expectancies for access control badges, surveillance cameras and Guard Dogs are one, 10 and five years respectively.

Rising Crime Rates have also led to a significant increase in commercial security. According to the U.S. Census Bureau, the methods of Security businesses are utilizing include Access Control Cards (19 percent), Surveillance Cameras (16 percent) and Guard Dogs (2 percent). Taking these percentages into account, experts applied these figures to the total amount of businesses along with the estimated cost of each item to calculate the total expenditures. The experts concluded that the approximate life expectancies for access control badges, surveillance cameras and Guard Dogs are one, 10 and five years respectively. Aside from the rise in Electronic Security, citizens are also investing heavily in Locking Mechanisms.

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A 1992 Census of Manufacturers estimates that Protection Plates, Push-Pull Bars, and Lock Trim account for 50 percent of \$140 million in expenditures. Also, experts contend Padlocks have reached \$682 Million in "Wasted" expenditures. The National Institute of Justice estimates \$160 Billion in annual expenditures are attributed to crime-related expenditures, including firearms, guard dogs, victim losses, criminal justice and commercial security. Add to that the cost of insurance. According to the Insurance Information Institute, in 1994, \$138 Million in paid premiums were devoted to burglary and theft Insurance. This was an increase of 11 percent from the prior year.

Diagnosing the Medical Care Costs from Crime

The most visible signs of crime-induced production are the Medical and Mental anguish suffered by the victims. Even in minor-injury cases, the cost to the victims is measured not by the dollar figures, but by the emotional toll. Medical care due to crime costs approximately \$2.5 Billion yearly. These costs incurred, as a result of an individual murder, rape, robbery and assault, are \$4,112 (Minus funeral expenses), \$530, \$175 and \$215, respectively. The study calculates the total cost by multiplying the figures by the number of murders reported by the U.S. Department of Justice along with the number of victimization's reported by the National Crime Victimization Survey.

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Opportunity Costs Stem from Lost Time, Wages

The aggregate burden of crime is not only measured by the value of lost or damaged property, but by the loss of time to the victim (See Table 3). For example, if a person is injured during a Car Jacking, he or she may have lost not only a vehicle, but also workdays. The National Crime Victimization Survey reports that 6.1 Million work days are lost to crime, an average of 3.4 days per infraction. The growing prison population has a domino effect on society's level of worker productivity. To date, the amount of state and federal inmates is well beyond 1 Million. Add to that 500,000 persons detained in jails during any given time. The study suggests that because infractions take time to orchestrate and carry out, opportunity costs are absorbed due to the criminals' time notwithstanding apprehension and imprisonment.

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In other words, society is denied the goods and services a felon would have produced in the time depleted by illegal activity, if he or she were legitimate. Furthermore, the average prisoner costs society \$5,700 in lost productivity each year.

Victims of crime lose nearly \$1 Billion annually in lost workdays. The value of this time was calculated by multiplying the lost days by eight to find the total number of lost hours and by the average cost of employee compensation per hour worked, \$17.95.

The amount of time spent with anti-crime programs, such as neighborhood watch, also contribute to opportunity costs. According to the National Association of Neighborhoods and the National Association of Town Watch, it is estimated that 20,000 neighborhood watch groups devote, on the average, five hours per person each day on crime watches.

The value of loss of life accounts for more than \$400 Billion per year.

The time spent by program participants was valued at the average cost of employee compensation, despite the fact that people may have participated in neighborhood watches during their "Free Time". Opportunity costs are also measured by the amount of time citizens spend on crime deterrence. Experts base their data on more than 150 findings that show individuals Locking and Un-Locking vehicles, offices, buildings, mail boxes and gym lockers. They also calculated the number of times each type of item is Locked and Un-Locked on a daily basis. Each adult exhausts Two Minutes per day Locking and Un-Locking doors, and more than two minutes each day looking for Keys. Thus \$89.6 Billion worth of time is exhausted in preventing crime. Opportunity costs as a result of criminal activities account for \$130.3 Billion per year.

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Weighing the Risks to Life and Health

The value of risks to life and health play a major role in calculating the overall burden of crime. This category examines the level of risk individuals are inclined to accept to enter a work environment despite potential threats to their health.

The effect of crime costs every citizen in the United States \$4,118 apiece annually. aside from the rise in Electronic Security, citizens are also investing heavily in Locking mechanisms.

The labor market data does not encompass expenditures accounted for by workers' compensation, specifically health care costs (usually offered without dollar or time limits) and lost earnings (within reasonable bounds, victims or their spouses typically acquire about two thirds of lost earnings for life or the duration of the injury).

The values do reflect perceived risks of pain, suffering and mental distress linked to health losses. If the risk involvement in a violent crime incites more mental distress than the risk of occupational injuries or fatalities, the labor market figures depict conservative estimates of the parallel costs of crime. Crime and occupational afflictions each cause approximately 1.8 Million victims annually to lose work time.

Transfer Costs Follow the Domino Effect

The "Aggregate Burden of Crime" study also looks at the effects of transfers to the bottom line. When fraud or theft is committed, a transfer of assets takes place from the victim to the criminal. If the alleged thief sells the stolen item to a third party for its value, the transfer is still carried out from the victim to the criminal. The individual purchasing the merchandise is only making a monetary transaction for an asset. In terms of fraud, experts contend the numbers are high and mixed. Also, fraud is categorized as a white collar crime. There are varying classifications of fraud that include: occupational, health insurance, financial institution, mail, property/casualty insurance and telecommunications fraud, as well as unpaid taxes and business theft. (See table 5). Occupational fraud is the most costly. The Association of Certified Fraud Examiners figures \$400 Billion is lost annually. It includes asset misappropriation, fraudulent statements, bribery and corruption.

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What do Aggregate Numbers Tell Us?

Anderson is quick to point out that the report calculates the aggregate burden of crime without focusing on absolute numbers. The data includes indirect costs, and admits that transfers due to theft should be omitted from the net burden of crime to society. The objective is to show that crime is measured beyond victims' expenditures as well as the cost of law enforcement. Furthermore, the overall cost estimates include the opportunity costs of criminals, prisoners' time, uncontrolled behavior and the private costs of criminal deterrence.

All data published in the article has been extracted from David A. Anderson's "Aggregate Burden of Crime" from the University of Chicago October 1999, Journal of Law and Economics. And this article written mainly by Security Sales Vitisia Paynich August 2000. Contributing author John Clymer II Intelligent Security Solutions Inc. P.O. Box 707 Havelock North Carolina.

Security and Protection

Let Us Start With the Home

Whether you own, rent or lease, the physical layout of your premise will have a bearing on your being a victim to a crime or not. I have found that if a house has been broken into once, it is very likely to be broken into again. And again. It is the personality or history of the dwelling.

Many times a house that has been robbed will again be robbed shortly after by the same robbers. It was after all, easy the first time.

I suggest you "Case" your house from the outside as though you were a criminal going to break in.

Are bushes obscuring the windows? Are there ladders left around to aid in getting to a second story window or to the roof top? Are there signs of a Security System installed? Are there notes left on the doors indicating when you will be back ?

Walk around your house. Look at it from across the street. From other neighbors yards.

Try to think like a criminal. Pretend that you would like to gain illegal entry (an Edison©).

What would you do?

Are there bushes to hide behind? Dog houses to climb up on? Trees to climb and drop to the roof? Basement doors secure?

Garage secure? If the garage is attached to the house, are those doors secured?

Are all doors entering the house secure?

With the information you have just gathered, you are one step further in protecting yourself, loved ones and property.

You should make any violation as tough to accomplish as possible. You want to visually deter the criminal into moving away from your home or you, to choose another target.

I once was a Shopper. My job was working Under Cover and I was to expose Shop Lifters.

The name of the operation was "Loss Prevention".

The object was not to actually catch a thief; but to expose them, in order for the thief to drop the merchandise they were trying to steal and leave the store.

To prevent anything from being stolen, the "Catch" was un-important. Businesses should read my episodes in Private Eye©.

The Easy Pickings is described in detail. The Rodgers Group©.

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Rekey / Change the Lock

If Keys are lost or stolen, the locks should be Re-keyed or Changed as soon as possible.

There is a difference between Re-keying and Changing a lock.

Re-keying a Lock

is when you make the old Key null and void and a new Operating Key is issued for the "Same" Lock.

Changing a Lock

a Lock is when the Lockset, Function or Finish is not correct and the entire locking unit is replaced.

If the premise is new to you through ownership, lease, rent, inheritance etcetera, the Locks should be Re-keyed and or Changed.

Any previous owners and or tenants may have working Keys to your dwelling. Anyone may gain entry at any time they wish.

I do not even like to give a Key to a Landlord. I had one sneak into an apartment that I rented at one time. Well, when I came out of the shower and this strange woman was standing there, she almost was hurt. I let the hammer down easy as I put the .357 away.

Their boyfriends, baby sitters, friends, relatives etcetera can walk in at any given time unannounced.

I know, I had it happen before I became a Global Security Specialist.®

I woke up one night in an apartment I rented.

I lived alone. I knew someone had been in my room and the house while I slept. I know it.

I had the locks rekeyed the next day and I studied my Locksmithing a little more in depth.

Who knows who each of these individuals gave keys to. New houses and apartments are just as bad. The Coffee boys, plumbers, electricians, everyone has keys.

Youths use the new unoccupied-lived in Houses with fire places and swimming pools. They are just the place for a date.

They enjoy them before the new owners do. The keys are left for all to use.

The Real Estate Agent

Case History:

I was called out to a Milford Massachusetts resident one evening to Re-Key the Locks. The man and his wife had recently purchased the place. The wife stated that a man wearing a ski mask had appeared in the living room.

As the wife told her husband and I about the mans description, the husbands jaw dropped open. The husband turned to me and said, "That sounds like the Realtor."

And just then his wife said, "Oh my God, that is exactly who it was."

They knew who it was. People are not stupid.

When you surprise a criminal, you place yourself in a very dangerous and possible deadly situation.

Securing Windows and Doors

Window Types

Windows may be replaced with Acrylic Plastic (***Plexiglas***) and it withstands moderate stone throwing and light attacks, but it will not withstand an aggressive attack.

Now, ***Polycarbonate Resin Plastic (Lexan)*** is twice the cost of Plexiglas, but it is almost indestructible and will take quite a beating.

Securing Windows

One way to secure windows that are mounted top and bottom and which slide up or down past each other is as follows:

With the two windows locked by the Clam Shell Lock, at one of the corners where the two windows over lap, drill a hole 1/8" diameter.

Drill through the first window frame and deep enough to penetrate the second windows frame, but do not go through it.

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Next, insert a finishing nail which extends out of the window frame 1/2", long enough to grab.

Should someone break the glass and unlock the clamshell, they still are unable to lift or lower the windows. The nail prohibits the separating of the two window frames.

When you want; any time you want, just pull out the nail, pin etc... and open the window.

The simple opening procedure may be performed by young and old and in case of fire.

From the inside it is easy. From outside they have no idea why the windows will not separate.

This procedure works GREAT!

Garage Over Head Doors

Garage Over Head Doors should be closed at all times. With the door closed the criminal does not know whether you are home or not. An open garage door with an empty garage usually indicates the house may be unoccupied. A welcoming invitation to the would be thief.

You should be weary that when you get out of the vehicle to open or close the over head door you are vulnerable to attack.

I recommend electric garage door openers to assist in the opening and closing of the over head door.

Keep in mind that you should watch the door from the vehicle and its mirrors for a criminal who might roll under the door at the last second.

Windows which are on the Over Head Garage Doors are very vulnerable to attack. Once the glass is broken access may be gained quite easily.

Screen Doors

Case History:

The previous robberies at my mother's house had left the screen door slashed.

We left a screen door unlocked on purpose so that the robbers could enter the porch and not damage the door.

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One hoodlum slashed the unlocked screen door with a knife and stepped through it anyway.

He should have at least tried the door first.

An Idiot and dangerous too!

Gun cabinets with glass doors should be left unlocked and alternative protective measures taken.

The would be robbers will only smash the glass and remove the goods anyway.

Deadbolts Do Deter Crime

Case History:

An older woman requested that I install Deadbolts one winter day for her while it was snowing outside.

The next day after I installed the deadbolts she telephoned me, very excited. She asked me to come back to her house. She said she had something interesting to show me.

When I arrived, she showed me footprints in the snow coming from the woods, up to her back door.

The footprints lead away from her house to her neighbor's house where her neighbor had been robbed.

The Deadbolts that I had installed the day before had deterred the thief from breaking into her home and robbing her.

Deadbolts are a very good first line of defense.

A great psychological defense.

Remember, a Lock is only as good as the material to which it is mounted to.

The saying I can not stand, "Locks only keep honest people honest" is trash. Locks prevent or deter a thief from walking off with ones goods. I am an "Honest" person, and if there were no Lock installed I would still be an honest person. I tend to believe that the people who use phrases like these are in fact thieves. Thieves trying to justify why a Lock has been installed on something.

You can have a heavy duty Lockset mounted on balsa wood, but it will not do much for protection.

Normally a thief will first walk away at the sight of Deadbolts and attack a less protected dwelling.

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Chain Locks

Chain locks are only a mental deterrent. Never use them. Once you have opened the door, the door is opened.

The doors movement may be used as leverage to rip the chain lock right off the frame.

Special Door Brace and Security Bars

Case History:

These tend to be junk and I do not recommend them. I had a woman hand me one new right out of the box.

Well the \$60.00 wonder fell apart as she handed it to me. I was ashamed for the entire Security Industry as I explained to the husband beaten woman that this particular Locking device was less than superior.

I do however, like the rubber footed steel bar which is affixed and jammed under the door knob to the floor. These are great against the door being kicked in. And they work great for traveling.

Safes

Safes usually come in two varieties; Fire and Burglary. The Safes sold in discount department stores are usually for fire only and may be violated by a large screw driver or just carried off.

I know that they look very strong, but they are not. Most of them can not even have the Combination changed.

Any Safe may be bolted to the floor.

Remove the Safes' wheels if there are any.

Open the Safe door and use a drill bit to drill through the Safes steel plate floor. Then use a screw driver and hammer to chip away the concrete type material inside. After this is accomplished use your drill bit to penetrate the Safes second piece of steel floor.

Use a long enough bolt or bolts to go through the bottom of the Safe and into the floor. After the bolts are lagged in, close and Lock the Safe door.

Security Can safes are original manufacturers product cans cut open and fitted with a threaded insert. The may be screwed open and your valuables concealed safely inside. The can is then closed and placed in the appropriate location for concealment.

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Lighting

Flood lights with Motion Sensors are very inexpensive. A competent electrician can install them for you. Timers placed on lighting equipment can also deter crime.

Remember lights and or noises are the criminal's worse enemies. These items attract attention and the criminal despises both.

Securing Valuables

Valuables may be kept at the bank in a safe deposit box. They may be insured.

It is an inconvenience to wear jewelry to go to the bank before and after.

If kept at home may be stolen. Utilize a safe or hiding spot. Fire. A Security System.

Alarm Systems

Alarm Systems are very good lines of defense when installed correctly.

I strongly urge any one interested in purchasing or installing Security Systems to acquire the Master Locksmith Security Encyclopedia Set,© Purchasing and or Installing Electronic Security Systems.© The information within these pages is unsurpassed and may save you thousands of dollars.

Don't Get an Alarm the Police Said

Case History:

One of our Alarm Monitoring Clients had a break in several years ago. At that time the local police told the couple, "Do not get a Burglar Alarm System." The police told the couple that Electronic Security Systems were junk and did not work correctly. They believed this poor and dangerous advice.

The couple was robbed and relieved of all of their belongings three days later.

Coincidence ?

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We installed a Burglar Alarm System at that premise and monitored it through central station. There have been several break in attempts since our installation, but nothing successful.

When installed correctly Burglar Alarm Systems work great!

It seems to be the police that do not work correctly.
The police should stick to what they know best.

I strongly urge the use of Electronic Security Systems when one is trying to protect an area.

The Security Systems and their applications are too numerous to mention here.

Again I reiterate, I would suggest further reading about Security Systems.

Clymer's Freedom Press® and Intelligent Security Solutions® have a thorough book titled,

"Purchasing and or Installing Electronic Security Systems®." I strongly suggest this informative literature.

Children and Personal Safety

Finger Printing Children

At birth, the hospital takes a foot print of every baby when it is born. This foot print is unique to the individual. There is only one unique print that belongs to each individual in the world.

This print should be used by the police for identification.

Because of the Government and police wanting to extend their power, they not only want Voice Prints, Signatures over the telephone of each individual, they want each person's finger prints also.

The only time one should give their finger prints to the police or anyone else is when they have to.

As when they are arrested or applying for a pistol permit.

If a child is to be finger printed it should be by the parents and parents ONLY.

The parents should keep the records for themselves and Lock the prints in a Safe. Perhaps a Safe Deposit Box at your local bank.

If something did happen to the child (GOD FORBID) the parents should only release the finger prints to a qualified **Finger Print Expert** with a signed receipt.

Not just any police person.

I personally would seek the council of a Private Detective first and then notify the police.

Again the police after the fact taking inventory for the insurance company.

Teaching Security to Children

Some of the following advice may be followed by adults as well.
Especially women.

It should be explained to children in clear, concise words so that they can understand the importance of being careful around strangers.

A stranger is:

- One who the parents and child know very little about
- All strangers are not to be trusted
- Strangers can harm the child
- Strangers are both male and female
- Strangers are young and old

The child should be taught to always keep the house doors Locked. A child should never let a stranger see their house Key. If the child arrives home and finds things different than usual, a window open, a door Unlocked etcetera, they should not enter the house. The child should go immediately to the nearest house or business and ask to call the police.

The child should never allow anyone into the house under any circumstances when the parents are not home. If a stranger does not leave the premise after knocking or being asked to leave, call the police. Emergency telephone numbers should be kept available for the child and the child should know how to use the telephone and call for help.

Answering the Telephone.

When the child uses the telephone they should be careful of the questions they answer.

The child should never give their name and the child should always ask to whom they are speaking with. If the party asks the child their name, the child should ask to whom does the party wish to speak to?

Never give the address over the phone if asked.

If a stranger asks what number is this, do not answer. Reply, " What number are you trying to reach?"

Do not answer questions asked by a stranger over the telephone.

If the person asks the child to purchase something or starts to talk obscenely and or they bother the child in anyway, have the child hang up the telephone immediately.

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When outside in public the child should never:

- Go near a car. They could be pulled into it.
- If the stranger stops and asks directions, Do Not go near the car
- Children are never to accept candy, toys, money or gifts offered to them by strangers

If a car stops and or starts to follow the child:

- Turn and run in the opposite direction.
- Make all the noise the child can muster.
- Go into the nearest store or home and tell them that a stranger is following them.

The child should understand that strangers will lie to them.

The stranger may say that it is going to rain or that you told them to pick them up.

The point here is that the child should never, ever get into a strangers car no matter what is said to them. Ever. Call home or go to someone that the child knows, but never get in the car.

A stranger is a stranger no matter how many times the child has seen or talked with the stranger and they will remain a stranger until you say otherwise or differently. The child may see the same person again and again around a play area (like an Edison®) and feel that it is all right to start to trust the person. The child should trust no one.

This rule is enforced whether the stranger is in a uniform or not.

If the child is not with you, ask the child to:

- Always have friends with them while walking or playing.
- Never play in an empty field or in an empty or abandoned house.
- Never get near enough to a stranger that they can be touched.
- If there ever is a problem, MAKE NOISE and ATTRACT ATTENTION.
- Scream the famous five words , "I DON'T KNOW THIS PERSON!"
"I DON'T KNOW THIS PERSON!" "I DON'T KNOW THIS PERSON!"
- If a stranger ever bothers the child, tell the parents immediately.
Do not be afraid to tell Mom and Dad.

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Lost Child

A child should know:
Their name, telephone number, address and mom and dads work
telephone numbers.

Who to trust, who not to trust.
A police officer (should have a badge). A life guard on a beach. A
store clerk in a store.

Children should be made aware that not only strangers may harm them,
but people they know as well.
Frequently friends and even family members may harm, assault and or
rape the child.

Child Abuse

Child abuse has become more and more a problem and is being given more attention today.

A child should be taught and made to understand that NO ONE may harm them in any way.

They should feel that they can tell you if anyone has harmed them physically or sexually in any way.

It is being proven more and more each day that child abuse is done more by those who know the child than by those who do not.

In the United States, population of women, one out of every four women will be sexually abused before the age of 18 years. That is 25% of all female children.

30% to 40% of all children are in one way or another sexually molested before they reach the age of 18. The assailant knew the victim in 75% of the cases and 34% of these incidents occurred in the home. These are very frightening statistics.

The offender in 20% of these cases was an actual family member.

These statistics are shy because most incidents go unreported. The experts say that 80% of these incidents could have been avoided.

I was raped and Molested by my Older sister

I personally (a male) was a victim of child molestation and rape while growing up. My sister was four years older than me.

I was six years old and my sister Jan was ten years old at the time my sister began to sexually molest me.

I was only six and therefore did not know and or understand this type of behavior was wrong.

Jan (my sister) began by "Stripping" in front of me. Eventually she had me performing sex to her.

Sometimes she had me touch and fondle her in the back seat of the car with a blanket over us. We would be traveling to and from my grandmothers house in Rhode Island from Massachusetts. My parents were unaware of what was happening in the back seat of their car.

We did this at our summer home, in the vehicle and other assorted places.

She continued with this behavior for many years. I was about fourteen and she was about eighteen when she stopped.

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My mother came into my sister's bedroom one evening and was totally shocked. She was aghast to say the least!

My mother sent me to my room and scolded my sister. My mother came into my bedroom and stated "This is NOT your fault. You are not to blame for any of this and I do not want you ever to feel guilty about any of it".

It was very nice of my mother to have understanding and compassion for me. And I have carried her words with me to this day.

I do feel at my age today of 46 that I was raped and sexually molested by my sister. And I do contribute my shyness around women to this.

My sister used to tell me all of these things about sex and she eventually instructed me it was all right to let men touch me. So around the age of eight I would let men perform oral sex to me.

A counselor at camp, my priest (my being an alter boy) older school boys etc...

Yes my sister is one sick individual.

I had baby sitters male and female perform oral sex to me.

I was about ten years old and in a restaurant in Natick Massachusetts "The Rainbow restaurant" getting a hot dog and soda one day. The owner (a male) asked me if I wanted to join a special and "**Private Club**".

I said sure (I was only eight years old). The next thing I knew I was in the back room having oral sex performed to me. When we were through the owner stated to me "You wouldn't believe what Sally (a ten year old girl who hung around the restraurant) had to do to join".

It was not until I was about forty six years old did I begin to tell people of my molestations and rapes.

I have told people of my sister Jan's misconduct and most seemed to think "I was a luck guy".

And it's all right you are a guy.

Later in the years my older sister Jan attempted several times to have children and each time she failed. I frankly am glad she did not have the opportunity to molest and rape more children.

Jan Clymer seemed to take advantage of people her entire life. She took advantage of my mother when she had a stroke and when my mother passed away my sister kept the entire heritance for herself.

I never received one dime.

She resides in Billerica Massachusetts USA today and all should be aware this pedophile exists.

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I know if she were confronted today she would deny it all and state I am only saying this for publicity.

Yeah. Sure. Watch your children, that's all I can say.

Males are Molested and Raped as well as females

I hope you the reader can see that males and boys are molested and raped as well as females and quite often I might add. More than people think and or wish to believe. It seems to go un-reported so therefore it never happens.

Parents should be aware of brothers and sisters as well as their mates/friends performing sex acts with each other.

Communication with your child is important and the child should understand that they have the right to say, "NO!".

No one should touch your child and the child should understand that "NO!" should be the answer.

Their body and mind belongs to them. "NO!"

The child will be told this is a "Secret" or "Secret Club." "NO!, we have no secrets or secret clubs."

I will show you me, if you show me you. NO!

The child should be instructed to tell their mother and or father of the request. Or if it is a parent, uncle or other guardian performing the advancements toward the child, the child should seek the advice of a teacher and or guidance counselor at school.

The child may be frightened by threats to harm the parents or to the child themselves. "NO!, NO!, NO!" The person issuing the threats quite possibly could be a teacher, aunt, uncle, baby sitter, someone they trust, even a policeman. "NO!". This is wrong. Tell someone.

Symptoms of Child Abuse

- Recurring nightmares
- Sleep patterns disrupted
- A NEW Fear of the dark not previously exhibited
- Loss of appetite
- Wetting the bed (regression)
- Sucking the thumb (regression)
- Excessive crying (regression)
- Bleeding from the vagina
- Bleeding from the rectum
- Vaginal or rectal, itching, pain, swollen genitals, vaginal discharge
- Underclothes that are stained, torn, or "lost"
- Venereal diseases and vaginal infections
- Fear of a certain person and or place
- Not wanting to be left somewhere or with someone
- Knowledge or interest in unusual sexual topics
- Changes in schoolwork, aggressive behavior, running away, withdrawal
- Secret meetings and clubs

Pre-school, baby sitters and others should be checked out thoroughly

Pre-school, baby sitters and others who will care for the child should be checked out thoroughly.

You should question whether there have been any previous complaints made against this Child Care Facility. Are the institutions and or people connected with any governing agencies? Have parents who previously used the service been happy or have complaints? Who do they hire and what are their hiring practices?

Are there background checks? Find out as much as you can about the teachers and staff.

Is there parent involvement? Are your questions accepted with a positive attitude? Is there cooperation?

Is there opposition? Make sure you have the right to stop in unannounced at any time during the day.

The child should never be taken off the property or premise, EVER, without your permission. NEVER.

Never give "blanket" permission. Your child should never be released to any party without your explicit permission and direction.

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Perhaps you would like to have the care giver sign a form that has a list of the people who can pick up your child and then sign it yourself and have a copy for your records.

You should talk with your child every day and maintain an open line of communication. All topics should be available to talk about and discuss.

If you suspect child abuse, believe your child.

A child will rarely, if ever, lie about being abused or sexually molested. After all, they are only children and most of their learning comes from adults and adult behavior, and children like to copy what they see and are taught.

Be aware parents.

Rape

The one thing that can not be impressed upon enough is the following;

If someone tries to abduct, rape or kidnap you; never, ever, ever, get in the vehicle. NEVER, EVER, EVER.

You are better off to take a bullet in the head right there in the parking lot than to get into the vehicle.

Again;

You are better off to take a bullet in the head right there in the parking lot than to get into the vehicle.

If one does get into the vehicle the odds are astronomically against them that they will ever be seen alive again.

Taking a bullet in the head there in a parking lot for others to witness is better than the atrocities which will occur to the victim with no one around.

Kick, scratch, claw, bite, scream, and do what ever it takes, but **DO NOT** get into that vehicle.

DO NOT GET INTO THAT VEHICLE !

If they have a gun to your head, **DO NOT GET INTO THE VEHICLE.**

I can not impress this enough. Once you get into the vehicle, I can assure you that you will not only be raped, but you will die a violent death.

If you are in a public area such as a parking lot, side walk or other public place, scream these five words;

"I DON'T KNOW THIS MAN!"

You see, if you scream and or yell, others in the area may only think it is a husband and wife fighting and do nothing about it. But if someone is being groped and screams,

"HELP!"

"I DON'T KNOW THIS MAN!"

"HELP! "I DON'T KNOW THIS MAN!" "HELP! "I DON'T KNOW THIS MAN!"
They are apt to draw more attention to themselves.

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Children should also be taught these important five words. If one was to see an adult and child fighting they might presume that it is the parent with a troubled child.

If the child screams, **"Help, I Don't Know This Man!"** it gives the picture a whole new meaning.

Case History:

December 2002

Recently in Havelock North Carolina USA a clerk at a front desk in a hotel was taken outside at gun point by a man. When the man attempted to get the woman into the car she began to kick, scratch, scream, bite and assault the thug.

She kicked, Scratched and Bit the man and was able to escape.

Three Cheers for Her.

Hip, Hip Hurray! Hip, Hip Hurray! Hip, Hip Hurray!

She is a very fortunate woman. She was lucky to keep her wits about her when all was looking grim. She did EXACTLY what she was supposed to do. She put up a fight all the way and she refused to get into the vehicle. Pretty brave considering the big bad thug had a gun to her head. Atta Girl!

Help Prevent Rape

Always know who you are with.

When going out on a date tell someone your attinary, where you are going and when you expect to return.

When out at a bar or other place of entertainment never leave a drink unattended. Ask a friend to watch it when you go to the rest room or finish the drink and the proceed to the rest room.

If you are raped

If a woman (or Male) is raped, do not be ashamed or feel dirty, you are not to blame. You are not to blame for any crime. The blame falls upon the criminal period.

Many victims believe they will be ridiculed or shunned.

Anyone who is a victim of any crime should notify the proper authorities immedietly.

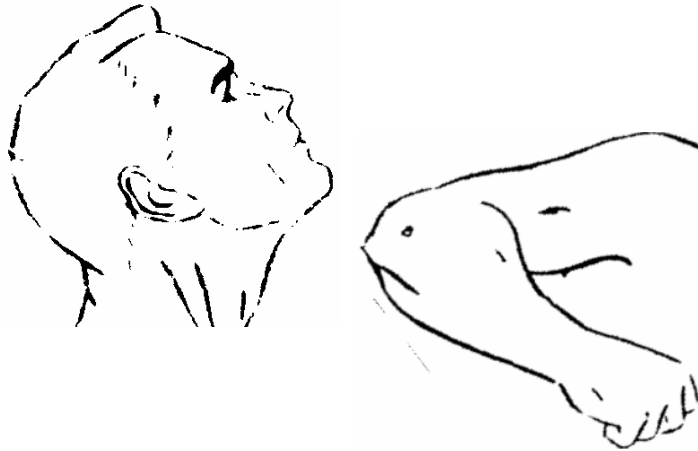
Do not wash your clothes or take a shower. All the evidence one may provide may help to get the creep off of the streets and help prevent another person from being a victim.

I understand the rape kits and procedures appear to be demeaning and embarrassing, they are not. The methods and proceedures are used in order to help society.

Self Defense Techniques

If You are grabbed from the back:

A "Chicken Wing" is when one bends their arm and slashing backward uses the elbow against the attackers head. Preferably the ear.



You are grabbed from the front, say by the collar:

A "Heel Stomp" is when you stomp the heel of your foot down hard atop the assailant's foot, above the arch. There are many bones there and I guarantee you will break some. And it will hurt them.

The heel of ones hand slammed up and into the attackers nose or chin, may work.



And run.

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Town Census Fireman Maddisonville TN.
October 4, 1998

Case History:

I was working on my Encyclopedia Set on September 30, 1998 at seven o'clock in the evening and Liz was almost through cooking a late dinner as a man walked by my office window through the bushes. It was almost completely dark out at this time. He had not used the walk as a normal human being would, he came through the bushes as an intruder would. He appeared to have come from the neighbor's yard.

There was a knock on the front door. "Who's there"? I asked.

There was a garbled mumbling. Again I asked "who's their"? Town, something he said. I went through the same thing last year and told the census people to go away and would not answer any questions as I would advise anyone. I foolishly opened the door. I knew better, yet I still opened the door. I thought I would be nice and tell them how many people lived here and then close the door. I was willing to cooperate. I was weary as I opened the door. " Yes" I said.

I am (I didn't get his name). This is exactly why I do not even usually allow this type of contact. I do not want the trash, AT ALL.

When one is caught off guard they tend to forget vital questions to ask, they are in a sense confused. I usually, completely avoid this type of contact at all costs. He showed me a clear Identification tag which any five year old could create and produce on there computer. The same ID badge that we use here for Global Security Specialists®.

He asked me a question. I did not here him. I asked "To whom are you looking for?" The man at the door said he was looking for "Mr. Brazatoni." Some name. It was not my name. I said, "Sorry, wrong party.", and started to close the door. He said "My information from 911 dispatch must be wrong". At this point it must be noted that I should have slammed the door shut in his face and locked it. I foolishly did not. I said "911 dispatch knows who lives here. You should have the correct information".

He asked "who are you"? I said "You should have the right information. 911 knows who lives here". This man was unknowledgeable of allot of security information.

He reminded me of a fortune teller, and what is your name?
Don't you know? you are the fortune teller.

He did not know, that 911 had been called by us over one hundred times in regards to tire slashings, assaults etc... He was unaware that when I called 911 using a **Call Block** 911 still asked me if I was Mr. xxx by name Mr.%%&&#? I used this SPY (Pretext) name with the phone company.

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It was not my real name. Although the phone company and government knew by voice recognition who the subscriber to the phone line really was, it made me feel better to have my Private Eye name as the subscriber.

The 911 dispatch knew who it was when I called that time, Mr.%%&&#.

This man at my door had the completely wrong information.

He then got mad and said "I am a FIREMAN and I need these questions answered".

I was offended that he now would use a job title to solicit information. the same way a MacClean© uses there Police uniform.

If I didn't know better I would bow down to such an authority and answer all questions asked of me.

I said "Look. I asked you one simple question. To whom are you looking for and you got the first most important question wrong. What do you want me to think? You work for the government and you do not even know who lives here. The Government knows who I am and where I live and you do not have the right information.

He said "I have a job to do and you should respect that".

I explained that "I am a security specialist and I to have a job to do and you should respect that".

As I closed the door he said angrily and with hostility in a threatening manner "I am going to come back in my Fireman's uniform and you will answer my questions".

My evening was ruined and I was very upset to have to deal with this type of behavior and another uniformed animal threatening me. Of course an animal from Madisonville TN.

I was unsure if he would come back and burn me out or what his intentions were.

Several days later he returned in uniform. I presume that there were many complaints.

There was an article in the paper about his antics and when he returned he was in a marked car. He parked the vehicle in the middle of the intersection. He parked out in the open for all to see and was in uniform.

He Not only visited our house but every other house in the neighborhood.

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5/27/2000

Channel 9 News Sidney Person said that a Tennessee Census taker Raped a woman in (Dayton?) Tennessee. This is the very reason I felt the way I did about the Madisonville Tennessee Fireman Census Person Skulking through my Bushes.

* Personal Note for the Record.

I Live with a very beautiful Strawberry blonde (Liz).

She is a "Looker".

They said that you do not have to let the Census Person into your home.

I always tell Liz (And she does anyway) to always keep the doors Locked. Never open the door, Speak through it.

Appalling, Ghastly and Reprehensible are the words used by Liz and I in describing the deplorable actions of the Juarez Mexican Authorities.

As of this date, Sunday, August 25, 2002 over two hundred (200) Juarez Mexican women have disappeared in a three year period. The women were raped, anally raped, tortured further. Their nipples were bitten off as well as their genitalia. The women then had gasoline poured over them and they were lit on fire. We pray they were dead by this point.

Several women were alive for over fourteen days until their death.

One can only imagine.

Over a ton of womens clothing has been uncovered.

There are many more facts, videos, pictures and other evidence than I could say here.

Many of the facts and testimonials are directed toward the Juarez Mexican police.

Of course narco (narcotics) traficing and others are also suspected of the crimes. Each blaming the other and making it appear as such.

I felt I owed their community some dignity as a fellow human being so I am writing here. I am trying to convey to the world as to what is going on out there in the real world.

The Juarez Mexican people need Security Consultation and Application.

The donation of cameras for street corners and a community of people to watch the monitors. They need Sound Security Consultation and Advice.

The Juarez Mexican women are hens in the hen house. And are being preyed upon by a; Fox, Bob Cat, Wolf, Cat and Bear at one time.

If you have a computer help them out. .com, .net, ...

Firearms for the Citizen

Most citizens should arm themselves and or keep handguns in the house.

The Constitution and Bill of Rights conveys this.

It is your Right to Bear Arms (Bear = Obligation, Duty...) as a citizen of the United States of America. My Eighth Great Grandfather George Clymer helped to create and sign the Declaration of Independence, Constitution, and Bill of Rights.

Thus, Clymer's Freedom Publications.®

If there are children around, be responsible. Keep handguns out of reach and concealed from children. I would also recommend a trigger lock for all of your firearms.

The major cause of child fatality due to firearms is from the lack of responsibility on the parent's behalf to properly teach the child about the firearm, its uses, and dangers. To allow only the police and or criminals to have handguns is absurd and foolish.

The Bad Guy or Bad Gal will acquire a weapon regardless of the illegalities. Money is the object for a weapon and the money will be stolen or acquired through stolen merchandise to procure that weapon regardless. Anyone with a piece of tubing can make a gun.

Gun education is the key.

Proper firearm care, handling, and use there of, should be a mandatory requisite to all children.

Law should be another mandatory subject. All children should be taught the laws of their society.

The children today are not taught any laws and have no idea of what society expects of them.

The children should be taught, starting with the law spitting on the sidewalk, and or basic laws and the information expanded on through the child's years of learning.

The Clymer's believe in the Right to Bear Arms.

Why is it that we Clymer's are not out shooting everyone in school?

I had a firearm as my father did, and as his father did, all before the age of six years old.

This country was not only founded and created with this belief and sound knowledge, but it was also put into writing for all to see.

Each Clymer explaining exactly what the Declaration of Independence and Bill of Rights really mean. And to stand by these beliefs with conviction.

After one is raped or attacked, to then rely upon another person (the police) to do anything is crazy.

What will they do? Take notes?

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The Police get paid through your tax dollar whether anything is accomplished or not.

And sadly it is now after the fact, the damage is already done.
Why even get to this point?

It is up to the individual to take precautions. Once a crime has taken place, it is almost astronomical the case will be solved or closed. I have seen more cases solved by angry and hurt individuals than through the police and their methods or techniques.

Glorified insurance adjusters. It is my opinion and I am entitled.

You need to take responsibility for protecting yourself before a crime occurs and reduce the odds of a crime happening to you.

I find it amazing that the person who is drunk, drives and kills someone is not to blame for the crime.

The bartender is blamed; the town is blamed for not painting brighter street lines, and the people in Spain who made the glass for the bottle in which to put the liquor are blamed, etcetera. Everyone else is to blame except the perpetrator themselves.

The same thing took place with the Columbine High School shooting in Colorado. The youths who did the crime are to blame, not the parent.

Each individual is responsible for their own actions. Period.

If one wishes to charge a child with a crime, then so be it. One child hurts and or kills another child.

If there had been multiple complaints about the rearing of the children, then the parents should be charged with neglect.

But to blame the parents for the child's crime is saying the parents should be Omni Present like God.

It is absurd.

My father told me that a child is just that, a child.

A child is not capable of making a rational decision. That is why they are "Under Age."

The child will not be of age until they reach "Legal Age."

When the child reaches "Legal Age" they are now considered an adult.

Once an adult they can make rational decisions.

Oh sure, I am aware that there were signs of trouble every where at Columbine High School Colorado.

Parents, teachers, students, friends, police, store keepers, etcetera, all probably noticed something wrong and never did a thing.

Most people never do. They are lazy. They do not want to get involved.

A lot of parents, should never have had children and are incompetent and irresponsible in rearing them.

That should be a considered a crime.

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Firearm Facts

- There are 700,000 Physicians in the United States.
- There are 80 Million Gun Owners in the United States.
- Accidental Deaths caused by Physicians per year: 120,000.
- Accidental gun deaths per year: 1,500.
- Accidental deaths per Physician: 0.171
- Accidental deaths per gun owner: 0.0000188

Doctors are approximately 9,000 times more dangerous than gun owners.

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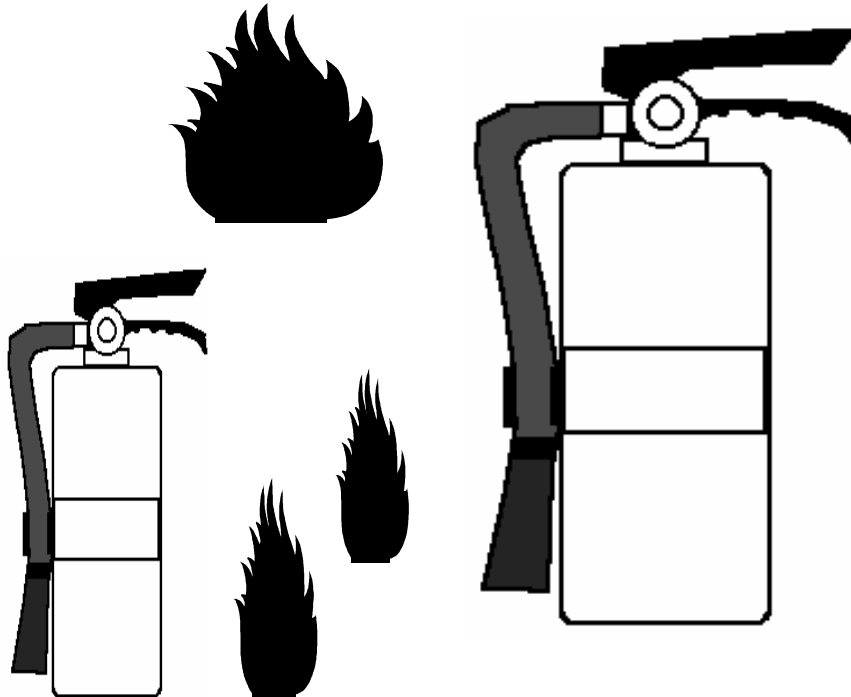
Positive Ethics Security Training©
P.E.S.T. Training

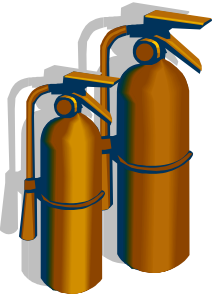
Dictionary Phrase:

Fire Extinguishers and Fire Egress Control Systems

Remember to use your

Master Locksmith Security Encyclopedia Set© Dictionary©





Learn Not To Burn Part I

Fire Extinguisher Types

Type A:

For wood, cloth, paper, trash and other common materials. These fires are put out by heat absorbing water or water based materials or smothered by dry chemicals.

Type B:

For oil, gasoline, grease, paints and other flammable liquids. These fires are put out by smothering, preventing the release of combustible vapors, or stopping the combustion chain. Use Halon, dry chemicals, carbon dioxide, or foam.

Type C:

For live electrical equipment. These fires are put out by the same process as Type B, but the extinguishing material must be electrical non- conductive.

Use Halon, dry chemicals, or carbon dioxide.

Type D:

For combustible metals such as magnesium. These fires must be put out by heat absorption and smothering. Obtain specific information on these requirements from your local fire department.

Combinations of the above letters indicates that the fire extinguishers will put out more than one type of fire.

Class 1 A:

Will put out a stack of 50 burning sticks that are 20 inches long each.

Class 1 B:

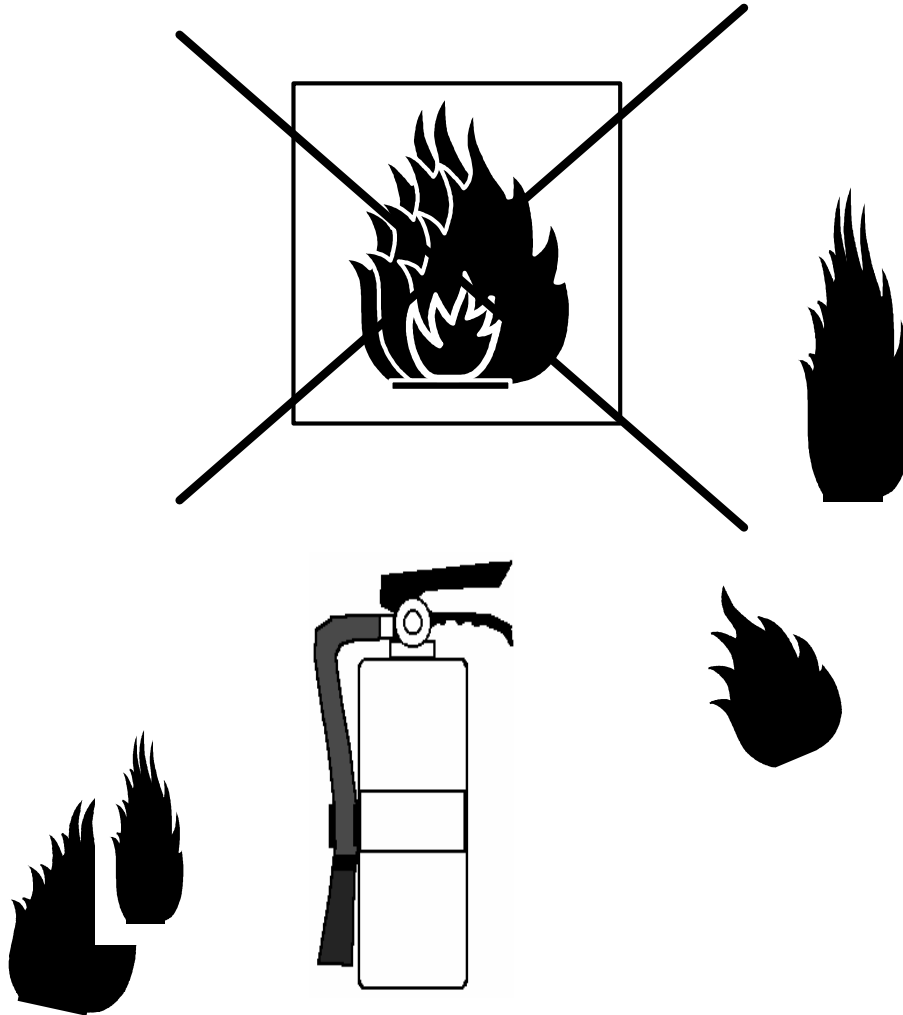
Will put out an area of burning Napha that is 2.5 square feet in size.

Another number other than "1" indicates the extinguisher will put out a fire that many times larger.

Example : 10 A will put out a fire ten times larger than 1 A .

If you purchase type **ABC** you should not have to worry about the fire you are to fight.

Halon or Carbon Dioxide will not damage electronic equipment and there is less of a mess.



Foam is expensive and used on air craft fires.

Emergencies

Getting Prepared

Be prepared to improvise and use what you have on hand to make it on your own for at least three days, maybe longer. While there are many things that might make you more comfortable, think first about fresh water, food and clean air. Consider putting together two kits. In one, put everything needed to stay where you are and make it on your own. The other E Kit should be a lightweight, smaller version you can take with you if you have to get away. You'll need a gallon of water per person per day. Include in the kits canned and dried foods that are easy to store and prepare. Powdered potatoes, powdered eggs, pancake mix, instant soup mixes in pouches, all are great quick fix foods. If you live in a cold weather climate, include warm clothes and a sleeping bag for each member of the family. Remember to rely only upon yourself. Begin being prepared by putting together an E Kit of Emergency Supplies.

Start now by gathering basic emergency supplies

Basic Emergency Supplies

- Flashlight
- Battery-powered radio
- Extra batteries
- First aid kit
- Toilet articles
- Prescription medicines and other special things your family may need
- Knife
- Rope
- Fire Starting materials
- Cooking Utensils
- Map of the area for evacuation or for locating shelters
- A whistle to signal for help
- Moist towelettes
- Also, include duct tape and heavyweight garbage bags or plastic sheeting that can be used to seal windows and doors if you need to create a barrier between yourself and any potential contamination outside.

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Clothing and Bedding

If you live in a cold weather climate, you must think about warmth. It is possible that the power will be out and you will not have heat. Rethink your clothing and bedding supplies once a year to account for growing children and other family changes.

Have at least one complete change of warm clothing and shoes per person including:

- A jacket or coat
- Long pants
- A long sleeve shirt
- Sturdy shoes
- A hat and gloves
- A sleeping bag or warm blanket for each person

Tools

- Emergency reference material such as a first aid book or a print out of this information
- Mess kits, or paper cups, plates and plastic utensils
- Cash or traveler's checks, change
- Non-electric can opener, utility knife
- Paper towels
- Fire extinguisher: small canister, ABC type
- Tube tent
- Pliers
- Compass
- Matches in a waterproof container
- Aluminum foil
- Plastic storage containers
- Signal flare
- Paper, pencil
- Medicine dropper
- Shut-off wrench, to turn off household gas and water

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- Sanitation
- Toilet paper, towelettes
- Feminine supplies
- Personal hygiene items

- Plastic garbage bags, ties (for personal sanitation uses)
- Plastic bucket with tight lid
- Disinfectant
- Household chlorine bleach

You can use bleach as a disinfectant (diluted nine parts water to one part bleach), or in an emergency you can also use it to purify water.

Use 16 drops of regular household liquid bleach per gallon of water. Do not use scented, color safe or bleaches with added cleaners.

Important Family Documents

Keep copies of important family records such as insurance policies, identification and bank account records in a waterproof, portable container.

Water & Food

One gallon of water per person per day, for drinking and sanitation. Children, nursing mothers, and sick people may need more water. If you live in a warm weather climate more water may be necessary. Store water tightly in clean plastic containers such as soft drink bottles. Keep at least a three-day supply of water per person.

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Food

Store at least a three-day supply of non-perishable food.

Select foods that require no refrigeration, preparation or cooking and little or no water.

Pack a manual can opener and eating utensils.

Choose foods your family will eat.

- Ready-to-eat canned meats, fruits and vegetables
- Protein or fruit bars
- Dry cereal or granola
- Peanut butter
- Dried fruit
- Nuts
- Crackers
- Canned juices
- Non-perishable pasteurized milk
- High energy foods
- Vitamins
- Food for infants
- Comfort/stress foods

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Many potential terrorist attacks could send tiny microscopic "junk" into the air. Many of these materials can only hurt you if they get into your body, so think about creating a barrier between yourself and any contamination. It's smart to have something for each member of the family that covers their mouth and nose.

Plan to use two to three layers of a cotton t-shirt, handkerchief or towel. Or, consider filter masks, readily available in hardware stores, which are rated based on how small a particle they filter. It is very important that the mask or other material fit your face snugly so that most of the air you breathe comes through the mask, not around it. Do whatever you can to make the best fit possible for children.

If There is an Explosion

- **Take shelter** against your desk or a sturdy table.
- **Exit** the building ASAP.
- **Do not** use elevators.
- **Check** for fire and other hazards.
- **Take** your emergency supply kit if time allows.
- **If There is a Fire**
- **Exit** the building ASAP.
- **Crawl** low if there is smoke
- Use a wet cloth, if possible, to **cover** your nose and mouth.
- Use the back of your hand to **feel** the upper, lower, and middle parts of closed doors.
- If the door **is not hot**, brace yourself against it and open slowly.
- If the door **is hot**, do not open it. Look for another way out.
- **Do not use** elevators
- If you catch fire, do not run. **Stop-drop-and-roll** to put out the fire.
- If you are at home, go to a previously designated **meeting place**.
- Account for your **family** members and carefully **supervise** small children.
- **Never** go back into a burning building.

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If You Are Trapped in Debris

- If possible, **use a flashlight** to signal your location to rescuers.
- **Avoid** unnecessary movement so that you don't kick up dust.
- **Cover your nose and mouth** with anything you have on hand.
(Dense-weave cotton material can act as a good filter. Try to breathe through the material.)
- **Tap** on a **pipe or wall** so that rescuers can hear where you are.
- If possible, **use a whistle** to signal rescuers.

Shout **only as** a last resort. **Shouting can cause a person to inhale dangerous amounts of dust.**

Clean Air

Many potential terrorist attacks could send tiny microscopic "junk" into the air. For example, an explosion may release very fine debris that can cause lung damage. A biological attack may release germs that can make you sick if inhaled or absorbed through open cuts. Many of these agents can only hurt you if they get into your body, so think about **creating a barrier** between yourself and any contamination.

Nose and Mouth Protection

Face masks or dense-weave cotton material, that **snugly covers your nose and mouth** and is specifically fit for each member of the family. Do whatever you can to make the best fit possible for children.

Be prepared to improvise with what you have on hand to protect your nose, mouth, eyes and cuts in your skin. Anything that fits snugly over your nose and mouth, including any dense-weave cotton material, can help filter contaminants in an emergency. It is very important that most of the air you breathe comes through the mask or cloth, not around it. Do whatever you can to make the best fit possible for children. There are also a variety of face masks readily available in hardware stores that are rated based on how small a particle they can filter in an industrial setting.

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Given the different types of attacks that could occur, there is not one solution for masking. For instance, simple cloth face masks can filter some of the airborne "junk" or germs you might breathe into your body, but will probably not protect you from chemical gases. **Still, something over your nose and mouth in an emergency is better than nothing.** Limiting how much "junk" gets into your body may impact whether or not you get sick or develop disease.

Other Barriers

- Heavyweight plastic garbage bags or plastic sheeting
- Duct tape
- Scissors

There are circumstances when staying put and creating a barrier between yourself and potentially contaminated air outside, a process known as "shelter-in-place," is a matter of survival. You can use these things to tape up windows, doors and air vents if you need to seal off a room from outside contamination. Consider precutting and labeling these materials. Anything you can do in advance will save time when it counts.

Use available information to **assess the situation**. If you see large amounts of debris in the air, or if local authorities say the air is badly contaminated, you can use these things to tape up windows, doors and air vents if you need to seal off a room. Read more: [Deciding to Stay or Go](#).

HEPA (High Efficiency Particulate Air Filtration) Filter Fans

Once you have sealed a room with plastic sheeting and duct tape you may have created a better barrier between you and any contaminants that may be outside. However, no seal is perfect and some leakage is likely. In addition to which, you may find yourself in a space that is already contaminated to some degree.

Consider a **portable air purifier**, with a **HEPA filter**, to help remove contaminants from the room where you are sheltering. These highly efficient filters have small sieves that can capture very tiny particles, including some biological agents. Once trapped within a HEPA filter contaminants cannot get into your body and make you sick. While these filters are excellent at filtering dander, dust, molds, smoke, biological agents and other contaminants, they will not stop chemical gases.

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Some people, particularly those with severe allergies and asthma, use HEPA filters in masks, portable air purifiers as well as in larger home or industrial models to continuously filter the air.

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Terrorist Glossary

Anthrax (Terrorist) - A non-contagious potentially fatal disease caused by breathing, eating or absorbing through cuts in the skin bacteria known as *Bacillus anthracis*.

Biological Attack (Terrorist) - The deliberate release of germs or other biological substances that can make you sick.

Chemical Attack (Terrorist) - The deliberate release of a toxic gas, liquid or solid that can poison people and the environment.

"Dirty Bomb"(Terrorist) - The use of common explosives to spread radioactive materials over a targeted area. Also known as a radiation attack, a "dirty bomb" is not a nuclear blast, but rather an explosion with localized radioactive contamination.

Evacuation (Terrorist) - The process of leaving a potentially dangerous area.

Nuclear Blast (Terrorist) - An explosion with intense light and heat, a damaging pressure wave and widespread radioactive material that can contaminate the air, water and ground surfaces for miles around.

Potassium Iodide (Terrorist) - Potassium Iodide has been approved by the FDA as a nonprescription drug for use as a "blocking agent" to prevent the human thyroid gland from absorbing radioactive iodine.

Radiation Threat (Terrorist) - The use of common explosives to spread radioactive materials over a targeted area. Also known as a "dirty bomb," a radiation threat is not a nuclear blast, but rather an explosion with localized radioactive contamination.

"Shelter-in-Place" (Terrorist) - The process of staying where you are and taking shelter, rather than trying to evacuate.

Smallpox Virus (Terrorist) - A serious, contagious, and sometimes fatal infectious disease. There is no specific treatment for smallpox disease, and the only prevention is vaccination. The name smallpox is derived from the Latin word for "spotted" and refers to the raised bumps that appear on the face and body of an infected person.

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Syrup of Ipecac (Terrorist) - A medicine used to induce vomiting in the case of accidental poisoning. Use syrup of Ipecac only under the instruction of poison control authorities because some poisons can cause more damage by being vomited.

Thyroid Gland (Terrorist) - A butterfly shaped gland that lies across the base of the neck in front of the windpipe that produces thyroid hormone.

Morse Code

A .-	H ...	O ---	V ...-
B -...	I ..	P .--.	W .--
C -.-.	J .---	Q --.-	X -..-
D -..	K -.-	R .-.	Y -.--
E .	L .---	S ...	Z --..
F ..-.	M --	T -	
G --.	N -.	U ..-	

More Morse Code

Error	Semicolon -.-.-.
	Wait .----
Hyphen -....-	Break -....-
	:Colon ---...
End Xmit --	, Comma ----
/ -.-.	- Dash -....-
(parenthesis) -.-.-	End Msg .-.-.
. Period .-.-.-quote .-.-.-	End Wrk-
? Question ..-.-.	

Morse Code Numeral

1 .----	6 -....
2 ..---	7 --...
3 ...--	8 ---..
4-	9 ----.
5	0 -----

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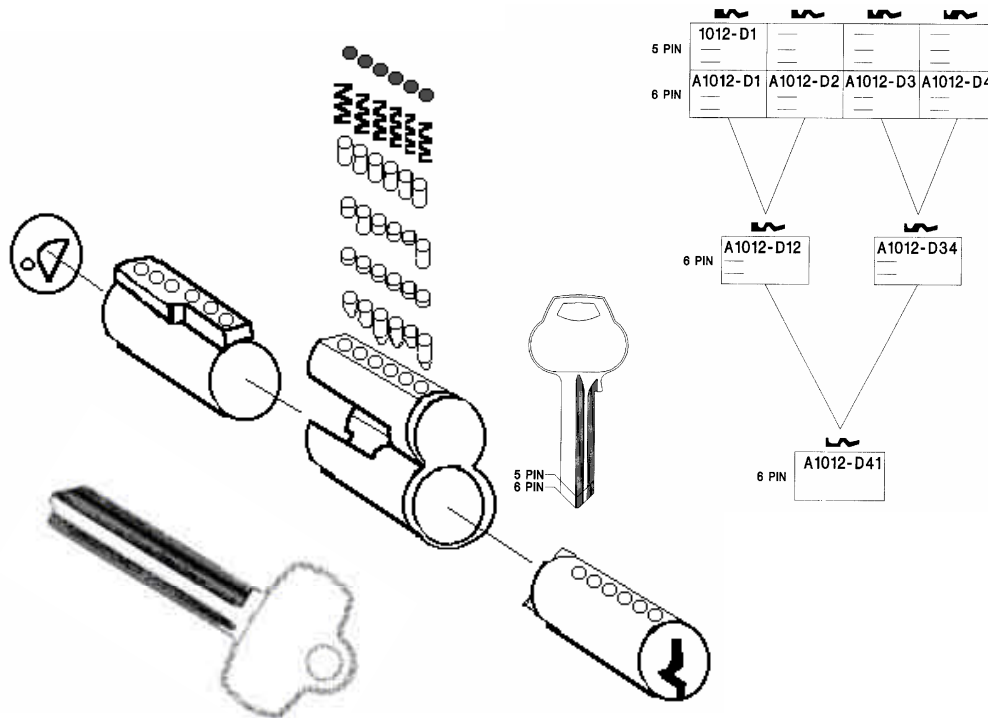
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P.E.S.T. Training

Dictionary Phrase:

Master Keying and Interchangeable Core / IC

Remember to use your
Master locksmith security encyclopedias set© dictionary©



Master Key Systems

We will start with a brief vocabulary of the phrase Master Key. The following interpretations are taken from the Master Locksmith Security Encyclopedia Set© Dictionary©.

Bitting Array (Lock) - 1) the arraignment of working cuts on a correctly cut Key. 2) Sequence.

Bittings Chart (Lock) - this refers to the chart used when master Keying. The chart is generated in a logical and theoretical sequence. A Bittings Chart is a list of all the Keys that work in a particular Key system. The pinning and bitting arrays needed are listed and sometimes the quantity of materials needed are listed as well. See Pinning Needs.

Master Key (Lock) - 1) a Key with the bitting arranged to operate two or more Locks of different changes in a group, each Lock being also operated by its own individual or change Key. See Keying.

Master Key Changes (Lock) -the number of different usable change Keys available under a given master Key.

Master Key Chart (Lock) - See Bittings Charts.

Master Key Program (Lock) - this is a computer program for master Keying. With simple data insertions a master Key system may be produced within seconds.

Master Key Progression (Lock) - this is a systematic method of progressing a master Key. Possibly through the use of a chart or formula. See Progression.

Master Key System (Lock) - a Keying arraignment with two or more levels of master Keying.

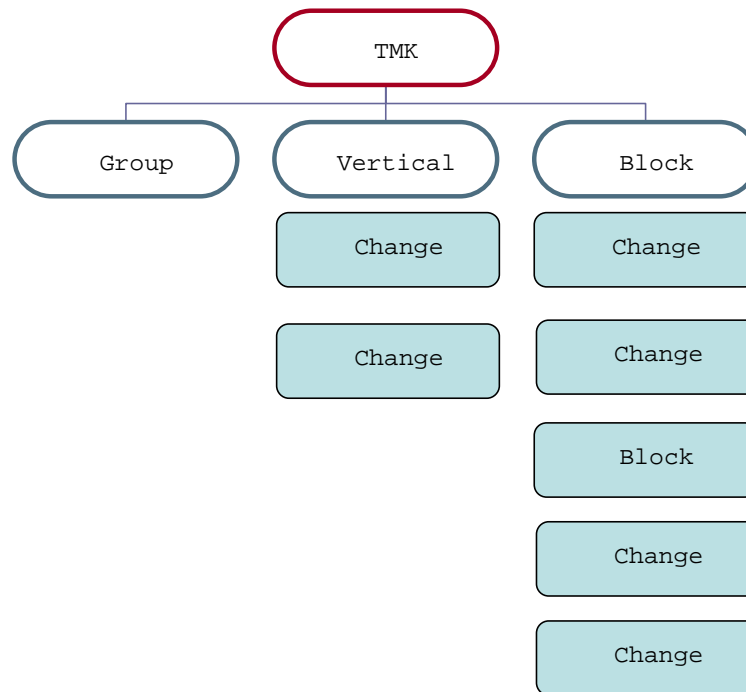
Master Keyed (Lock) - a group of cylinders that are or are about to be Keyed so that each operates by its own Key and that the entire group is operated by one Key. A (Master Key).

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Master Keyed Lock (Lock) - a Lock that has been furnished in a group, each Lock being operated by its own individual or change Key, and all Locks in the group being operated by a single master Key.

Master Keyed Only (Lock) - a Lock that has been Keyed so that only the master Key from a master Key system will operate the Lock.

Master Keying (Lock) - the process of setting up the Key changes in a group or series of Locks in a master Key system.



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Attitude and Positive Ethics©

To work with Master Keying you must first have an understanding of Basic Lock operation.

A Bittings Chart is required in order to have a logical sequence of generated Keys.

Because of today's technology this is usually computer generated.

Master Key Systems may be designed by hand however; the time involved may be extensive and Ghost Keys and other such undesirable Keys may also be present.

What is a Bittings Chart you ask?

A Bittings Chart is a list of all the Keys that work in a particular Key system. The Pinning and Bitting Arrays needed are listed and sometimes the quantity of materials needed in order to Pin Up a Lock are listed as well.

My choice is a computer generated Bittings Chart.

The computer generates the Master Chart or Bittings Chart in a short time (seconds) while eliminating unwanted Keys. Ghost Keys.

The Bittings Chart is very important and must be kept for future reference.

Many Locksmiths, almost all Locksmiths, keep this Bittings Chart after performing the work for a Client.

The Client having paid for the Security System is then short changed.

The Locksmith should inform the Client from the beginning that any and all work to be performed on this Security System now and in the future will utilize this Bittings Chart. The Client should have the option of retaining the Bittings Chart in their records or grant custody of such Security records to the Locksmith.

Example:

It is the same principle as an Alarm Installer keeping a Dealer/Installer Lock Out Code for an Alarm Panel install.

Perhaps the Alarm Installer may not inform the purchaser that a certain security Panel may only receive and send information to only certain other types of equipment. Or neglect to inform the Client that a certain special Key is needed to perform work on the unit. All of these forms of conduct are what I call Negative Ethics©.

Many Locksmiths are afraid the Client will call someone else and thus retain the Bittings Chart deceitfully.

The Locksmith is unreliable or incompetent or even has an inferiority complex and keeps the Bittings Chart for them self. This is theft.

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The odds of the Locksmith ever responding again or being available to the Client are slim, if at all.

A majority of Locksmiths only perform hit and run type work.

But the Locksmiths always seem to retain the Bittings Chart as a sort of;

"I will fix you and whoever you call next time" attitude.

I never understood why. Most Locksmiths seem to do it.

I personally inform the client I have created such a chart and offer to sell the chart to them or it will remain in my custody.

I explain how important the chart is and with out it the client is pretty much sunk. It is a must have. I explain the entire program and how the next Locksmith will have to start over again.

If one is a competent enough Locksmith and wishes to indulge and take the Locksmith thing to another level they can do so by De-Pinning the lock and through the use of a micrometer, mic each Pin and Pin Stack of a lock. This De-Coding must be done to several locks in the system and it is possible to De-Code and decipher the system. The Locksmith at this point is good, very good and should not be reckoned with.

And I salute You.

The client can purchase the Bittings Chart from me, the fee is \$200.

Usually most clients will tell me to hold the chart and for me to keep it secure. So I do retain the chart, it is mine.

The Client is purchasing the, Pinning, the Hardware, the service etc, from me. The Chart, I own.

Case History

We had performed Locksmith / Security work for a Client National Seating (a subsidiary of grey Hound Bus) in Tennessee. We had installed and repaired Fire Doors, Deadbolts, Knobs etc... Including a Master Key System. They Loved it. Before installing the Master Key System we informed them of Bittings Charts.

When I vacated Tennessee and moved to North Carolina 2000, I called National Seating (a subsidiary of grey Hound Bus) and informed them of my move out of state. Two years previously I had informed them of the importance of the Master Key Bittings Chart. I reminded National of the charts importance.

I offered the Master Keying Bittings Chart for \$250.00.

I informed National Seating we would offer thirty days to make a decision and then at that time we would shred the documents for security reasons.

Sold!

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\$250 Bucks! American. Plus the thousands of dollars worth of work I had performed thanks to "My Bittings Chart".

Please be aware one can not try to snag \$250 bucks when they want. The Security Person first must have explained to the client about the chart and offered the opportunity for the client to purchase and acquire this document.

Our Discussion Master Keying

Tools needed for study;

- Appropriate Key Blanks for the Locks to be Master Keyed. Preferably "Do Not Duplicate". DND.
- Several Locks of the same brand and Keyway to be Master Keyed.
- Bittings Chart.
- Pin Kit with Master Pins, Tweezers, Plug Follower.
- Equipment necessary to generate Keys by Code.
- Stamp Set including letters and numbers.
- Small peening hammer.

Master Keying and Master Pins

Let's Review

(taken from Basic Lock©)

Pin Stacks may have more than just a top and Bottom Pin. As in Master Keying, another Pin is added to the Pin Stack.

Master Pins are much smaller than Top Pins, but are similar in shape. This Pin is flat on both ends. It is not rounded or pointed on one end as the Bottom Pin is.

A Master Pin is added to the Pin Stack when one is Master Keying. Master Keying is basically having "different" Cut Keys each operating their own individual Lock in that group. This single Pass Key or Change Key could only Unlock its own individual Lock.

Each single Pass Key could **not** operate any other Lock.

Yet, one Key, the Master Key will open ALL of the Locks in that group.

When Master Keying is performed correctly, you might have a Master Key that would Un-Lock every Lock in a group of twenty Locks. You might have four of these twenty Lock groups each with a Master Key only capable of opening the Locks in its own group of twenty Locks and yet a Great Grand Master capable of opening all of the Locks in All of the four, twenty Lock, Master Keyed groups. Adding more groups and more Master's and Grand Masters and thus adding Great Great Grand Masters and so on.

Such may be the case in a chain of stores.

Thus the phrase Master Keying or Master Keyed.

When a Master Pin is added to the Pin Stack, the added length to the original Top Pin and Bottom Pin, must be accounted for and eliminated to the total Pin Stack. You are gradually filling up the Pin Chamber. This being the case a Key with shallow Cuts may not be able to enter the Lock. There would be no room to push the Pin Stack up into.

The Pin Stack Height is eliminated through the use of a smaller Bottom Pin and smaller Top Pin.

That is when calculations and or a Master Key Computer program come in.

Let's move on.

The Master Pin or Master Pins are "Sandwiched" between the Bottom Pin and the Top Pin. This creates an extra Shear Line or Shear Lines and thus it is technically easier to Pick the Lock.

This extra Shear Line now increases the number of Keys that may operate this Lock.

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There may be as little as one Master Pin in the Lock to as many as several Master Pins in several Chambers of the Lock. I have seen Locks that possessed several Master Pins in each Pin Chamber.

Each time a Master Pin is added it multiplies the number of Keys capable of Un-Locking the Lock.

Thus lowering the Security somewhat.

This WILL drastically reduce the Security of the Lock and make it easier to compromise.

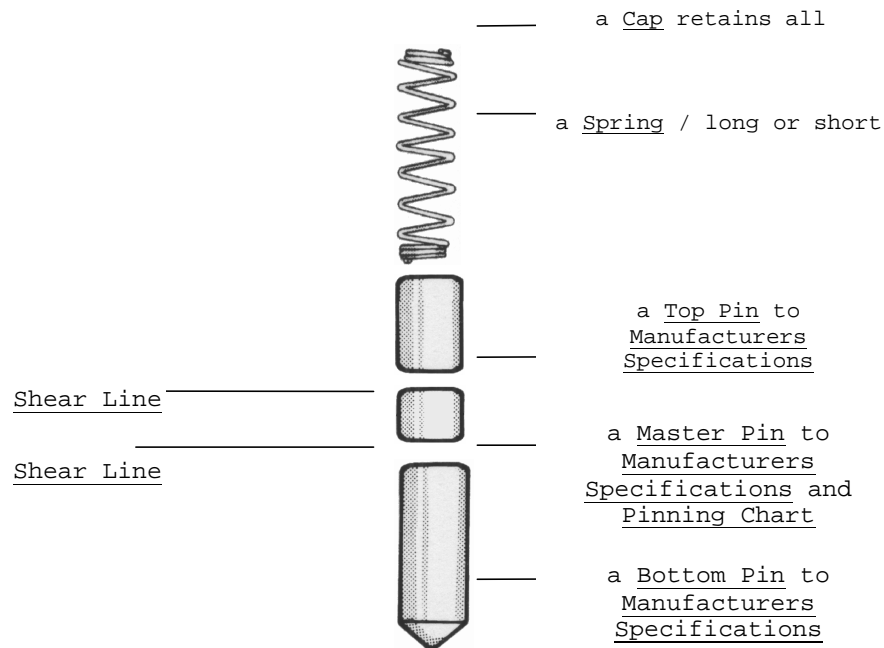
Not only will it possibly Pick easier, but a Key that does not belong to that group may actually Work the Lock by "Jiggling" the Key. As if using Jiggle Keys.

Please be advised that the lesson here is to guide you on the use and creation of a Master Key System.

This is by no way a complete tutorial, this lesson is only an outline. Without getting ones hands physically involved with the Master Keying it is difficult for me to be sure that you even understand this very brief discussion.

Complete Master Pinning books are available and are suggested reading. Master Keying may be considered an entire Locksmith / Security field in itself.

Below is a view of a Pin Stack and a Master Pin has been added.



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* Note - the addition of the Master Pin creates another Shear Line or Shear Lines and thus permits keys cut to different specifications to work the Lock. It may reduce the Security as well with the addition of the extra shear line or lines.

The Bittings Chart Generation

Single Step Progression is one procedure of Master Key generation.

There are several other ways.

For discussion we will be utilizing the Two Step Progression method. We will be using a computer generated Bittings Chart in order to expedite the Master Keying lesson. It must be understood that extended learning may go into the creation of the Master Key charts themselves.

If written by hand it could take quite some time to generate a Bittings Chart.

I strongly recommend a computer generated Master Key Chart or a Bittings Chart.

The Bittings Chart begins with a Theoretical Master Key , abbreviated TMK.

Every Master Key System is different and any numbers may be chosen and used when generating the Master Key System.

Usually an odd / even number sequence or even / odd sequence is chosen.

odd, even, odd, even, odd or even, odd, even, odd, even. And one must keep in mind the Mac's.

We will say for our discussion that we will be using Schlage Keyways.

SC1 / Five Pin Locks.

Let's say the number we will use for our Theoretical Master Key is
4 3 2 5 4

The sequence we have chosen is; even, odd, even, odd, even.

The computer program generates our Bittings Chart.

This Key 4 3 2 5 4 is now Cut by Code and stamped TMK (Theoretical Master Key) .

The number of Locks this Key will open is 418 . This is the most powerful Key in our Master Key System.

Remember this pertains only to the system which we are creating here.

This Key will operate any Lock in the entire Keying System.

The next Keys with the most power are the Base Master Keys.

The Base Master Key (stamped A) will open any Locks that are designated under that particular Base Master. A Base Master will only open Locks in its own Base and Page. It will not open any other Locks in the system.

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Master Key Designation

Qty / (Locks this Key operates)

Bitting ID

Theoretical Master Key**TMK..43254**.....

The bold areas designated to the left will be our areas of study.

	TMK	QTY / 418	
<u>Base Master</u>	A	71	.....03254.....
<u>Page Master</u> (1)	AA	31	.....01254.....
<u>Page Master</u> (2).....	AB	40	.....05254.....
<u>Base Master</u>	B.....	104	.....23254.....
<u>Page Master</u> (5).....	BA.....	31	.....21254.....
<u>Page Master</u> (6)	BB.....	40	.....25254.....
<u>Page Master</u> (7)	BC.....	33	.....27254.....
<u>Base Master</u>	C.....	137	.....

Out of our system of 418 Locks, our first Base Master Key (A) will open 71 Locks.

Our second Base Master Key (stamped B) will open 104 Locks.

The third Base Master (stamped C) Key operates 137 Locks.

The fourth Base Master (not printed) (stamped D) Key operates 106 Locks.

The numbers total 418 Locks.

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The bold areas designated to the left will be our areas of study.

Theoretical Master Key**TMK**..43254.....

	TMK	418	
<u>Base Master</u>	A	71	.....03254.....
<u>Page Master</u> (1).....	AA	31	.....01254.....
<u>Page Master</u> (2).....	AB	40	.....05254.....
<u>Base Master</u>	B	104	.....23254.....
<u>Page Master</u> (5).....	BA	31	.....21254.....
<u>Page Master</u> (6).....	BB	40	.....25254.....
<u>Page Master</u> (7).....	BC	33	.....27254.....
<u>Base Master</u>	C	137	.....

Please be aware that in any Master Key System there may be more or less base stations and more or less pages.

The first Base Master (A) has two sub-sections under its control and these two sections are called Page Master.

Page Master one (stamped AA) and Page Master two (stamped AB).

Page Master one has 31 Locks in its section.

Page Master two has 40 Locks in its section.

The total of Locks in Base Master one (A) is 71.

The second Base Master (stamped B) has three sub-sections under its control and these three sections are called Page Masters.

Page Master five (stamped BA) contains 31 Locks.

Page Master six (stamped BB) contains 40 Locks.

Page Master seven (stamped BC) contains 33 Locks.

The total of 104 Locks found in Base Master two.

There is another Base Master (stamped C) and Page Masters also under it and so on. The chart continues.

Under each Page Master may be found the list of individual numbered Locks which refer to that Page Master.

We will be working with : Base Master one (A) , and Page Master one and Page Master two.

*Please make note that a Page Master has nothing to do with a piece of paper. It could take many pieces of paper to create one Page Master list.

In the physical Security System that we have been creating we will find that there are 31 Locks under Page Master one.

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Change Key Chart / Page Master One

Key	Key ID	Page	Bitting	Vert	Block	
1	AA - 1	1	01010	01054	01014	We are in base one and located on page one
2	AA - 2	1	01012	"	"	
3	AA - 3	1	01016	"	"	
4	AA - 4	...1.....	« 01030	.....01034.....	"	The areas which we wish to control are designated by the arrow.
5	AA - 5	1	01032	"	"	
6	AA - 6	...1.....	« 01036".....	"	
7	AA - 7	1	01038	"	"	
8	AA - 8	1	01410	01454	01414	
9	AA - 9	1	01412	"	"	
10	AA - 10	1	01416	"	"	
11	AA - 11	1	01430	"	01434	
12	AA - 12	1	01432	"	"	
13	AA - 13	1	01436	"	"	
14	AA - 14	1	01438	"	"	
15	AA - 15	1	01472	"	01474	
16	AA - 16	1	01476	"	"	
17	AA - 17	1	01478	"	"	
18	AA - 18	1	01496	"	01494	
19	AA - 19	1	01498	"	"	
20	AA - 20	1	01610	01654	01614	
21	AA - 21	1	01612	"	"	
22	AA - 22	1	01616	"	"	
23	AA - 23	1	01630	"	01634	
24	AA - 24	1	01632	"	"	
25	AA - 25	1	01636	"	"	
26	AA - 26	1	01638	"	"	
27	AA - 27	1	01672	"	01674	
28	AA - 28	1	01676	"	"	
29	AA - 29	1	01678	"	"	
30	AA - 30	1	01696	"	01694	
31	AA - 31	1	01698	"	"	
<hr/>						
32	AB - 1	2	05010	05054	05014	We are in base one and located on Page two.
33	AB - 2	2	05012	"	"	
34	AB - 3	...2.....	« 05016".....	"	
35	AB - 4	2	05030	"	05034	
36	AB - 5	2	05032	"	"	
37	AB - 6	...2.....	05036".....	"	
38	AB - 7	2	05038	"	"	
39	AB - 8	2	05072	05454	05414	
40	AB - 9	2	05076	"	"	

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The Bitting, the Vert, and the Block each are individual Keys.

The Bitting will only open that individual Lock.

The Vertical is another Key with power and it will open any Lock in that Vertical group to the next Vert number and of course only in that page. The Vertical Key will also open any Locks that fall under its Block to the next Vertical in that page.

In other words, the AA - 1 Key cut to the Vert at (01054) will open any and all Locks that fall between and inclusive of AA - 1, AA - 2, AA - 3, AA - 4, AA - 5, AA - 6, AA - 7. That includes the Block for those same Key ID numbers (01014), (01034) and any Block Locks they include.

If we look at the Lock #4 stamped AA - 4 and read across to the Block we will find the AA - 4 Key ID is Bitted to 01030.

This single Key will only open this Lock. However; if we continue to look across toward the Block we will see a Key Bitted 01034 at the Block. This Key Bitted to 01034 will not only open itself (the AA - 4), but it will also open the next three Locks which fall under its Block. AA - 5, AA - 6, AA - 7 .

The single Key which is cut at AA - 6 (01036) will only work that individual AA - 6 Lock. However; our AA - 4 Key (01034) for the Block will open the AA - 6 Lock also. It falls under the Block control

The Vertical Key AA - 1 (01054) will open any Lock in that Vertical group including any Locks in the Block sections. Until the next Vertical.

However, our AA - 1 Key cut to a Bitting of 01010 will only open that one Lock. So you see that the Key stamped AA - 1 cut to different Bittings may open one or many Locks, depending on the cuts made on that Key.

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Change Key chart

Key	Key ID	Page	Bitting	Vert	Block	
1	AA - 1	1	01010	01054	01014	We are in base one and located on page one.
2	AA - 2	1	01012	"	"	
3	AA - 3	1	01016	"	"	The areas which we wish to control are designated by the arrow.
4	AA - 4	...1.....	« 01030.....	".....	01034	
5	AA - 5	1	01032	"	"	
6	AA - 6	...1.....	« 01036.....	".....	"	
7	AA - 7	1	01038	"	"	
8	AA - 8	1	01410	01454	01414	
9	AA - 9	1	01412	"	"	We are in base one and located on Page two.
10	AA - 10	1	01416	"	"	
11	AA - 11	1	01430	"	01434	
12	AA - 12	1	01432	"	"	
32	AB - 1	2	05010	05054	05014	We are in base one and located on Page two.
33	AB - 2	2	05012	"	"	
34	AB - 3	...2.....	« 05016.....	".....	"	
35	AB - 4	2	05030	"	05034	
36	AB - 5	2	05032	"	"	The areas which we wish to control are designated by the arrow.
37	AB - 6	...2.....	« 05036.....	".....	"	
38	AB - 7	2	05038	"	"	
39	AB - 8	2	05072	05454	05414	
40	AB - 9	2	05076	"	"	

We then start the process again with AA - 8.

AA - 8 (01410) will only open that Lock. AA - 8 (01454) will control the entire Vertical for that section and AA - 8 (01414) will operate the Locks under that Block (AA - 8, AA - 9, AA - 10).

Remember, the Vertical section includes all of the Locks in that Vertical's Block, until the next Vertical.

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Pinning Chart

This is the pinning chart for our system. The arrows designate the areas which we wish to control. This chart designates the pinning of the Locks.

	Key ID	Page	Bitting	Bottom Pin	Master Pin	Drivers (Top Pin)
1	AA - 1	1	01010	01010	42244	MMLMM
2	AA - 2	1	01012	01012	42242	MMLMM
3	AA - 3	1	01016	01014	42242	MMLMM
4	AA - 4	..1	...01030	« 01030	.....42224.....	MMLMM
5	AA - 5	1	01032	01032	42222	MMLMM
6	AA - 6	..1	...01036	« 01034	.....42222.....	MMLMM
7	AA - 7	1	01038	01034	42224	MMLMS
8	AA - 8	1	01410	01210	42244	MMMMM
9	AA - 9	1	01412	01212	42242	MMMMM
10	AA - 10	1	01416	01214	42242	MMMMM
11	AA - 11	1	01430	01230	42224	MMMMM
12	AA - 12	1	01432	01232	42222	MMMMM
13	AA - 13	1	01436	01234	42222	MMMMM
14	AA - 14	1	01438	01234	42224	MMMMS
15	AA - 15	1	01472	01252	42222	MMMSM
16	AA - 16	1	01476	01254	42222	MMMSM
17	AA - 17	1	01478	01254	42224	MMSSS
18	AA - 18	1	01496	01254	42242	MMMSM
19	AA - 19	1	01498	0125	42244	MMSSS
20	AA - 20	1	01610	01210	42444	MMMMM
21	AA - 21	1	01612	01212	42442	MMMMM
22	AA - 22	1	01616	01214	42442	MMMMM
23	AA - 23	1	01630	01230	42424	MMMMM
24	AA - 24	1	01632	01232	42422	MMMMM
25	AA - 25	1	01636	01234	42422	MMMMM
26	AA - 26	1	01638	01234	42424	MMMMS
27	AA - 27	1	01672	01252	42422	MMMSM
28	AA - 28	1	01676	01254	42422	MMMSM
29	AA - 29	1	01678	01254	42424	MMSSS
30	AA - 30	1	01696	01254	42442	MMMSM
31	AA - 31	1	01698	01254	42444	MMSSS
<hr/>						
32	AB - 1	2	05010	03010	42244	MMLMM
33	AB - 2	2	05012	« 03012	42242	MMLMM
34	AB - 3	..2	...05016	« 03014	.....42242.....	MMLMM
35	AB - 4	2	05030	03030	42224	MMLMM
36	AB - 5	2	05032	03032	42222	MMLMM
37	AB - 6	..2	...05036	03034	.....42222.....	MMLMM
38	AB - 7	2	05038	03034	42224	MMLMS
39	AB - 8	2	05072	03210	42244	MMMMM
40	AB - 9	2	05076	03212	42242	MMMMM

We are in base one and located on **Page two**.

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By following the pinning chart and cutting the correct Vertical, Block and single Keys, you should be all set. Use basic pinning technique. The only change is the addition of the master pin.

Bottom pin, master pin, top pin.

Take your time when laying the system out.

I usually have the Client write a list of all of the user names on a piece of paper, a list. I then have them write down after each persons name where that individual may have access to. A closet, front door, Jane's desk etc...

I then cross reference each user working with my Keying chart.

You might find it helpful to put a piece of masking tape on each closet, door etc. At the site, with the designated symbol AA - 4, AA - 5 .

In this manner it may be easier in placing the actual Locks at the site.

You may have more than one Lock assigned to a Key id.

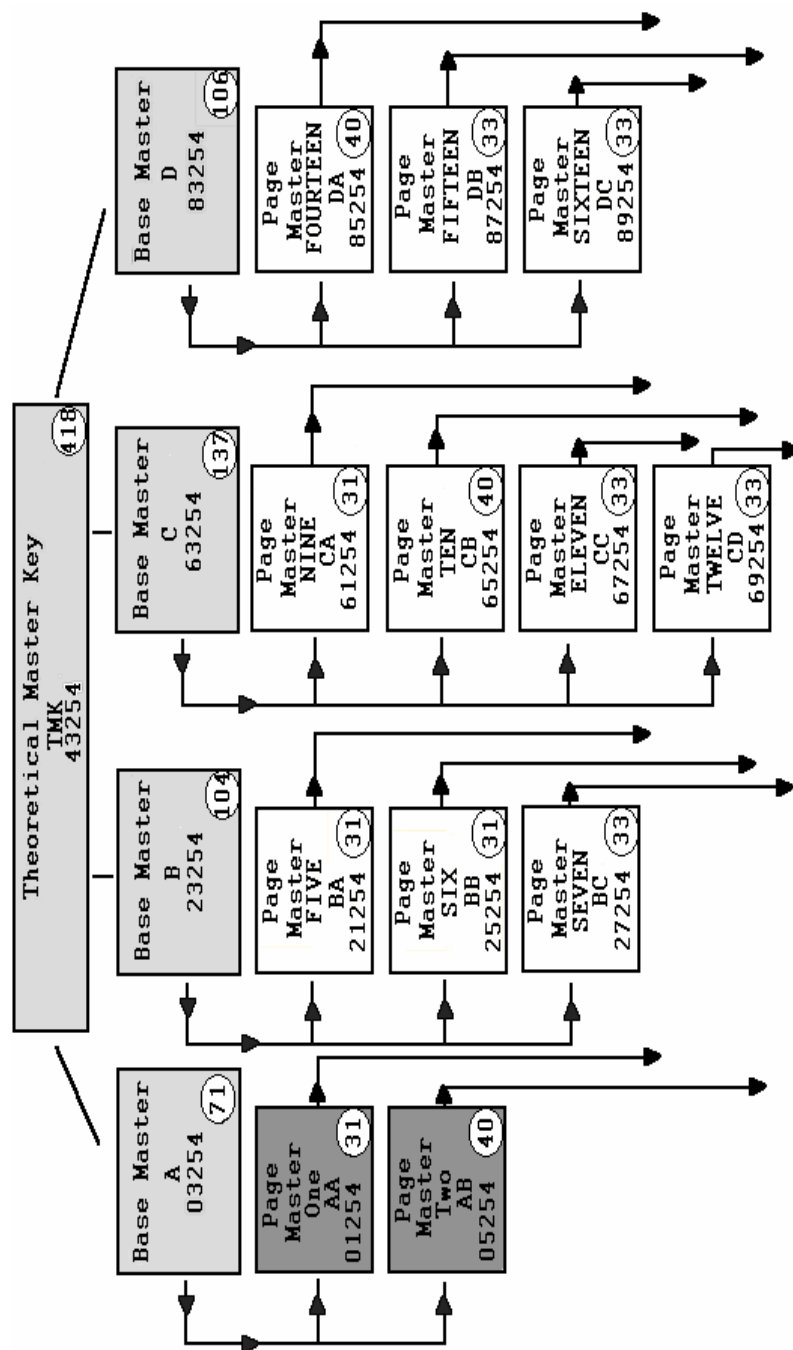
For instance, several utility closets may be assigned and pinned to one ID such as AA - 4. Or any ID you wish.

Stamp the Keys with their correct ID.

Only give the Keys to the person who hired you unless you are designated to do something else with the cut Keys.

It is all right for an employee to have several Keys to different areas.

The owner usually only wants one Key, or the fewer the better.



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Levels of Master Keying

The divisions of a master Key system into hierarchies of access.

Two Level Master Key System

LEVEL OF KEYING	KEY NAME	ABBREVIATION	KEY SYMBOL
LEVEL II	MASTER KEY	MK	AA
LEVEL I	CHANGE KEY	CK	1AA, 2AA, ETC...

Three Level Master Key System

LEVEL OF KEYING	KEY NAME	ABBREVIATION	KEY SYMBOL
LEVEL III	GRAND MASTER KEY	GMK	A
LEVEL II	MASTER KEY	MK	AA, AB, ETC...
LEVEL I	CHANGE KEY	CK	AA1, AA2, ETC...

Four Level Master Key System

LEVEL OF KEYING	KEY NAME	ABBREVIATION	KEY SYMBOL
LEVEL IV	GREAT GRAND MASTER KEY	GGMK	GGMK
LEVEL III	GRAND MASTER KEY	GMK	A, B, ETC.
LEVEL II	MASTER KEY	MK	AA, AB, ETC.
LEVEL I	CHANGE KEY	CK	AA1, AA2, ETC.

Five Level Master Key System

LEVEL OF KEYING	KEY NAME	ABBREVIATION	KEY SYMBOL
LEVEL V	GREAT GREAT GRAND MASTER KEY	GGGMK	GGMK
LEVEL IV	GREAT GRAND MASTER KEY	GGMK	A, B, ETC.
LEVEL III	GRAND MASTER KEY	GMK	AA, AB, ETC.
LEVEL II	MASTER KEY	MK	AA1, AA2, ETC.
LEVEL I	CHANGE KEY	CK	

Six Level Master Key System

LEVEL OF KEYING	KEY NAME	ABBREVIATION	KEY SYMBOL
LEVEL VI	GREAT GREAT GRAND MASTER KEY	GGGMK	GGGMK
LEVEL V	GREAT GRAND MASTER KEY	GGMK	A, B, ETC.
LEVEL IV	GRAND MASTER KEY	GMK	AA, AB, ETC.
LEVEL III	MASTER KEY	MK	AAA, AAAB ETC.
LEVEL II	SUB MASTER KEY	SMK	AAAA, AAAB ETC.
LEVEL I	CHANGE KEY	CK	AAAA1, AAAA2, ETC.

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Extensive study may go into this area of Locksmith security work.
I suggest further study for those who wish to indulge deeper.

Have faith in yourselves and the work you perform. I do.

Master Keying and set up

The first thing is to find out who needs to gain access to what doors and at what particular times.

One might want to start with the cleaning crew and or janitors.

The utilities such as; telephone, electric, gas, etc, would be considered next. This Key can be a separate sub Key because those who work on these systems do not usually belong to the organization performing the Master Keying.

Stamps and stamping the Keys

Stamping the Keys for identification.

The correct stamping placed upon a master Key or Grand Master Key may allow a master Key system to be decoded and taken over.

The GMK (Grand Master Key) if marked as such may be de-coded and the system broken. My computer master Key system program could do it in about three seconds.

Just enter the depths of cut and how many pin stacks, press f10 and your done.

If the GMK was not marked, the investigator would not know where in any system that it fell into.

Decoding a master Keyed Lock would always be a method of trying to overcome the secrets of that particular Security System.

The bottom pins as well as the master wafers would have to be de-coded in order to try an attempt a take over.

Any Key that is marked correctly and is identifiable diminishes the systems security.

I learned through experience that the correct way to stamp the Keys is by the correct system numbers and or letters. And I did it this way for many, many years, until I realized that I was dealing with thieves.

Yes, it is actually a mathematical system combined with mechanics and is used in this particular instance to Lock and or un-lock a door or doors in a logical format.

Except, we are dealing with pirates on both sides of the door.

First, there are the bad guys and bad gals.

Second, the ones who want the work done sometimes do not pay their bills. It gives one leverage.

Third, one can always sell the master Key system rights later.

I would think to anyone. That's right. They sell ones bills to another credit collector.

If I saw a nice looking babe; I too, could purchase her bill in order that the young lady, "owes me".

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Withholding the Master Key Systems Chart

Similar to an alarm system and the installer code.
The numbering was created in, and remains in, my computer.

Key Sections

A Key Section ads some degree of additional security.

Key Section (Lock) - the cross sectional shape of the blade of a key blank, made up of ridges, or lands and grooves.

Sectional Keys are shown here. What this does is, it allow us to insert specific cut keys only into specific Key Ways.

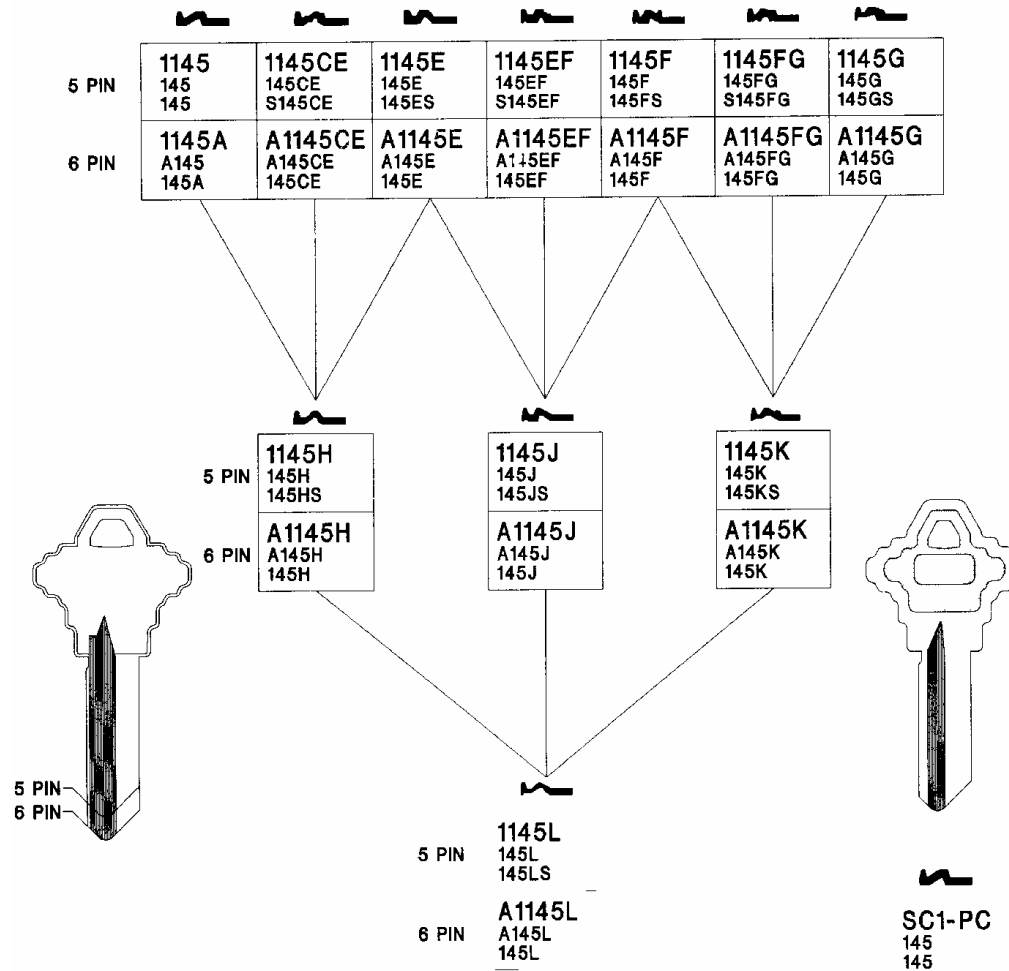
The diagrams show what keys operate what locks. Now if we were to ad Master Keying on top of this, wow!

Yale and other companies have a vast array of cross sectional key ways. Thus allowing a great degree of security when offering total security.

Look at the Cross Sections and you will see the vast array of configurations.

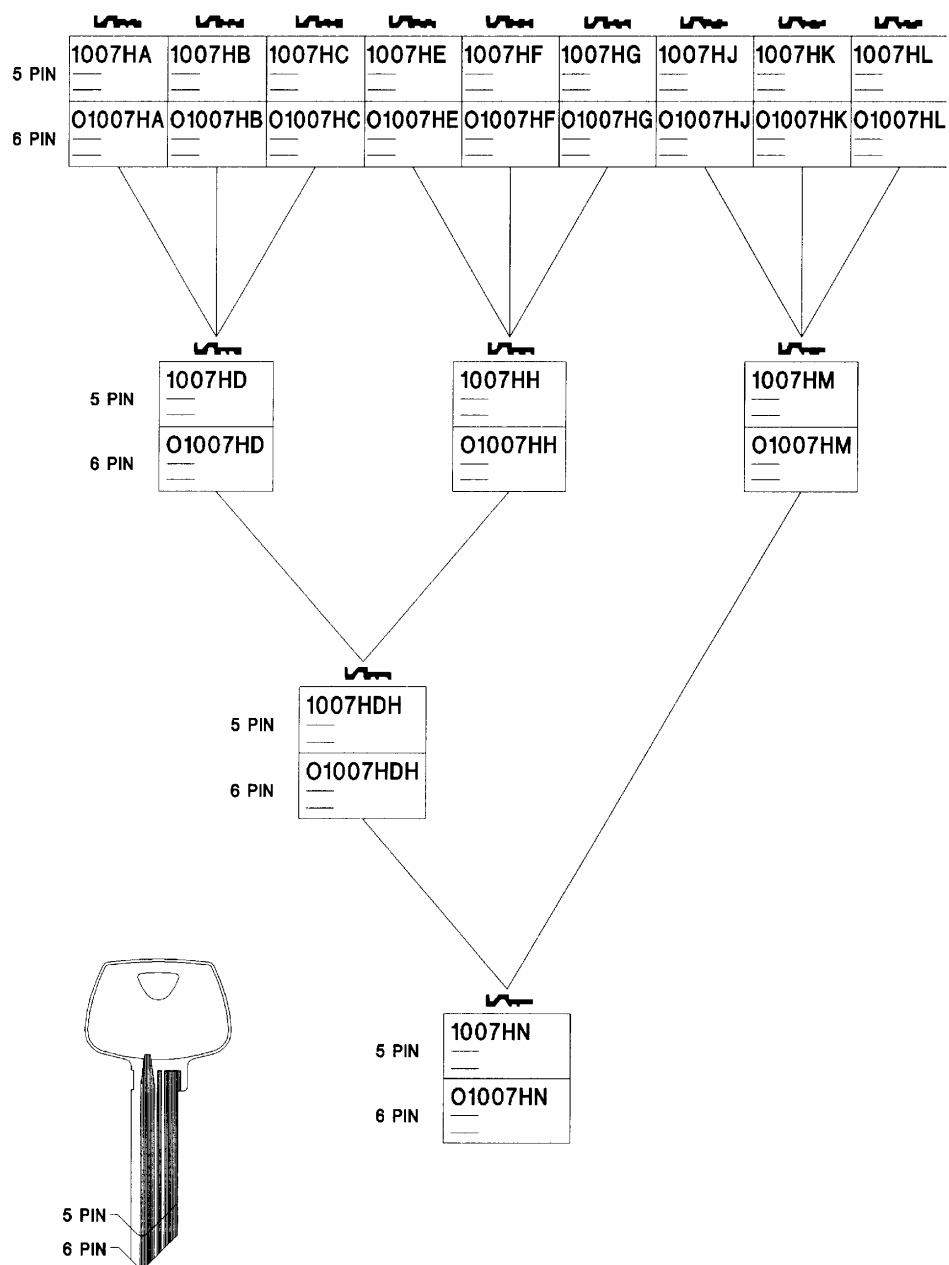
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Schlage



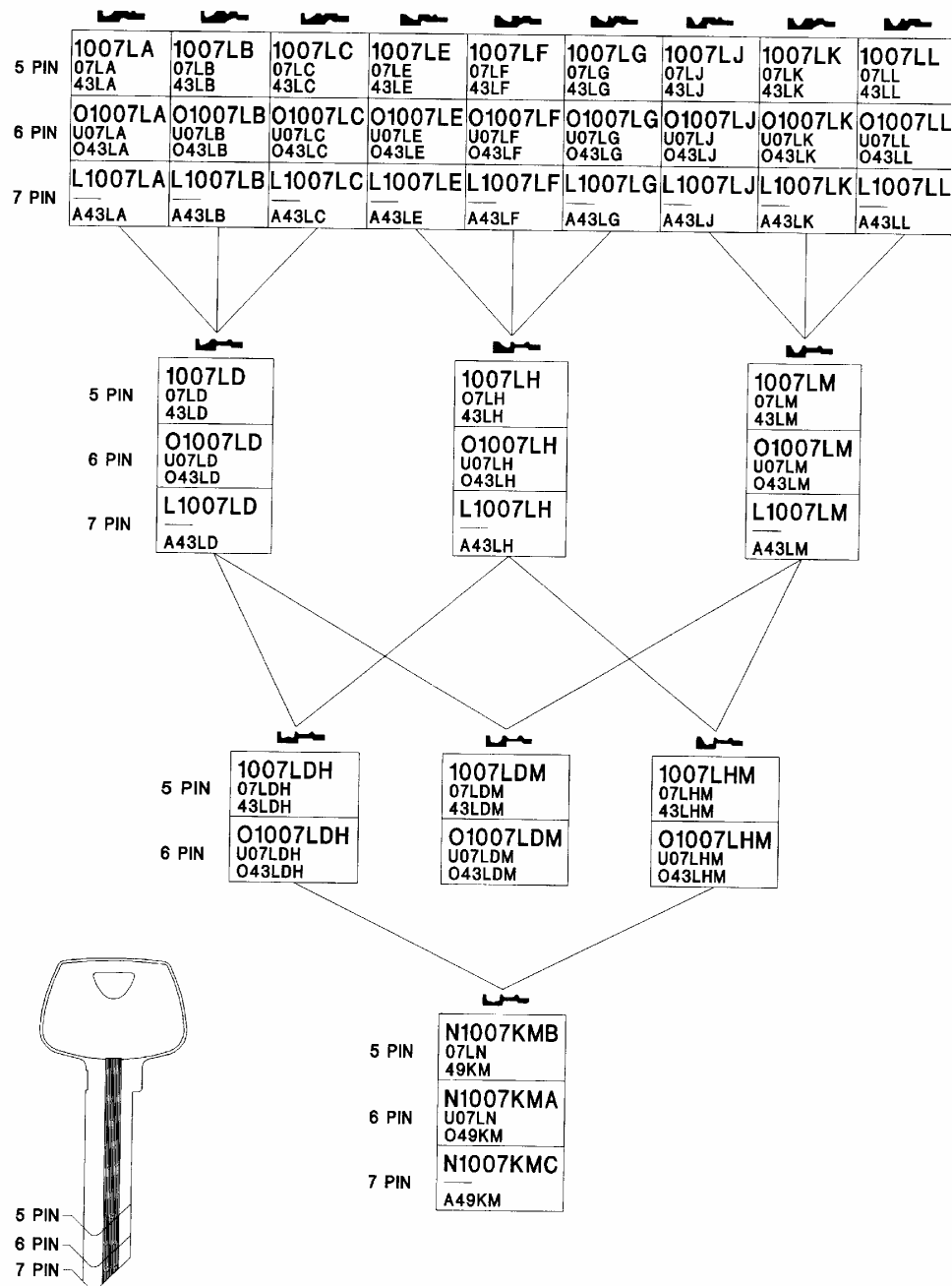
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Sargent



The Interchangeable Core / IC

The Interchangeable Core is as vast as any field of Locksmith Security could be.

An entire life's time could be devoted to working with it and applying its lessons. There are many methods of study on the subject of Interchangeable Core, and I suggest anyone interested in the field of I.C. to continue with further reading and application.

You should possess a basic knowledge of : Master keying if you plan to pursue I.C. .

The most commonly used system is the A-2 system.

The I.C. Was invented to improve the Security of buildings and have quick Re-Keying capabilities should the need arise.

Having to wait for the "locksmith" can sometimes take days.

Or so they say. I always responded within hours, if not shorter periods of time when called upon.

The average person without any lock experience can Rekey a lock in seconds using a prepared Interchangeable Core system.

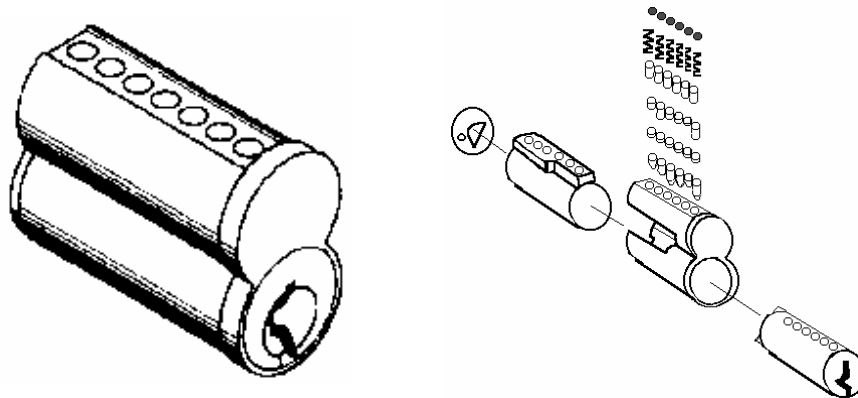
Hotel, motel, industry, schools, government, chain stores etc... Are all applications for the I.C. .

IC systems are set up pretty much in the same way as a Master Key System with one exception. The Plug or Core may be removed and used in another lock by the use of a Control key.

The addition of a control pin in our pin stack allows us to use a control key. Of course with additional lock parts as well.

Once you understand the Master Key aspects the IC will be a synch.

The IC core is built as one piece and is not made to be worked on other than Rekeying it.



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Over View

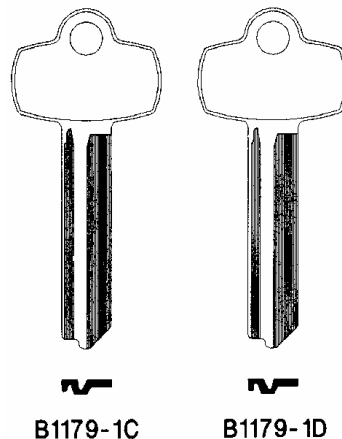
- A Control Key or Core Key is inserted into the Cylinder to be removed. The Control Key is then turned 45 degrees to the left (Counterclockwise). In this position the Control Lug is now freeing the Core (I.C.) for removal from the Shell.
- The I.C. is then pulled out of the shell by the Control Key. Once the I.C. is in hand, the Control Key is then turned back to the original position that it was inserted into the Core and the Control Key removed.
- The Control Key is then inserted into the new Core to be used and the Control Key is turned to the right (Counterclockwise) 45 degrees in order to retract the Control Lug. The new Core is inserted into the Mortise Cylinder I.C. Shell or other I.C. Hardware. The key is turned back to the original position that it was inserted into the core. In this position the Control Lug is locking the new Core into the Shell.
- The Control Key is now removed.

The entire operation takes less than thirty seconds to complete.

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I.C. Facts and Facts are Facts

Note Notch at Tip
of Key



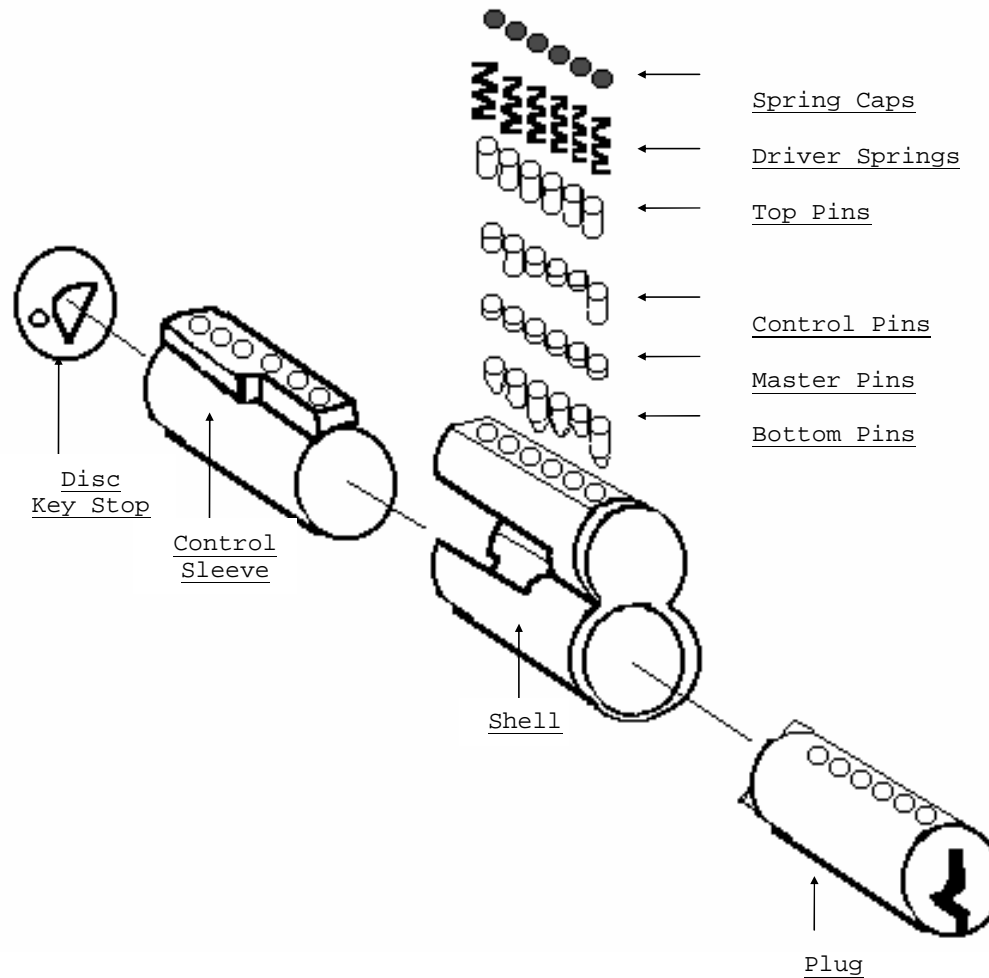
- The Interchangeable Core key is Gauged From Tip to Bow.
- The number of **23** is used for the Pin Stack total.
 "I.C. 23"
- The total Pin Stack length is around .397 inch. (.400)
- There are **18** different length Master Pins, Control Pins, and Top Pins.
- All pins use .0125 inch depth increment.
- Diameter of all pins .108
- ***All chambers must contain; Bottom Pin, Control Pin, Top Pin, and Spring.**
- A Chamber that is used for Master Key Progression will contain a Master Pin between the Bottom Pin and the Control Pin.
- A Pin Chamber should not contain more than four pins.

There are five, six, and seven pin Interchangeable Cores.

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Picture This IC

A Close look at a Six Pin Interchangeable Core



Drawing Courtesy of John Clymer II

A five pin (Shell) will only accept a Five Pin Core.

Like wise a seven pin Shell will only accept a Seven Pin Core.

The Interchangeable Core has two different Shear Lines.

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- The Operating Shear Line
- The Control Shear Line

The Operating Shear Line is the same as any Pin Cylinder.

The correct operating key, Master Key or Change Key will raise the pins to the correct Shear Line. The plug and the Control Sleeve when aligned, permit the plug to rotate within the sleeve.

The Control Shear Line is between the top of the Control Sleeve and the Core Shell.

The only key that will raise the Pin Stacks to allow the Control Sleeve to rotate is the Control Key .

Turning the Correct Control Key in the Core will rotate the Control Sleeve turning the Control Lug into the slot in the I.C. And permit the core to be removed from the shell.

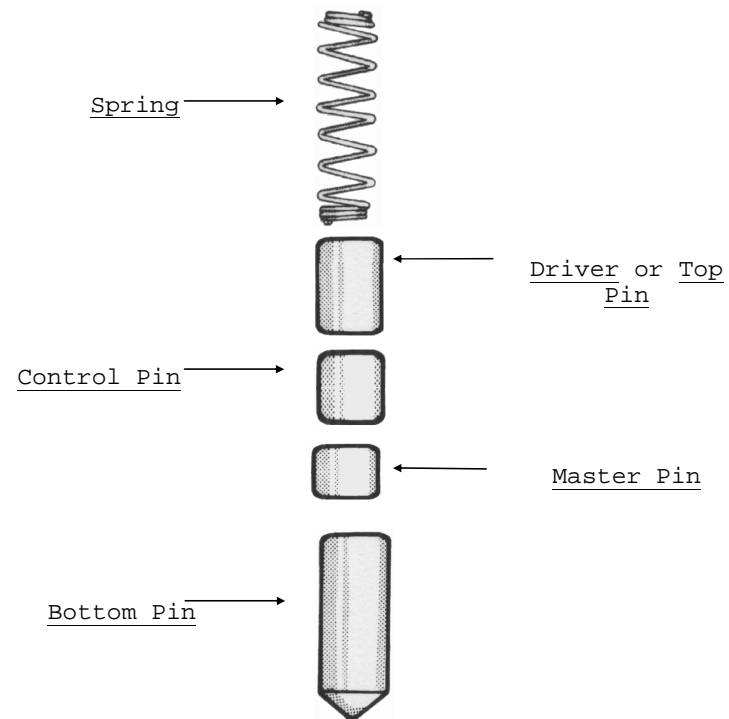
When working with I.C., Remember that the Pin Stack total Should be "23".

The Driver, Control Pin, Master Pin and Bottom Pin should total 23 when the sums are calculated in a specific combination together.

If you know what the Control Key Cuts are, you also know this Key will be constant throughout the entire system.

The Drivers should also be a constant.

An IC Pin Stack Equals the total of 23



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Interchangeable Core Pin Increments

A2 System

Pin increments .0125 / diameter of pins .108

2 - .025	7 - .087	13 - .162	18 - .225
3 - .037	8 - .100	14 - .175	19 - .237
4 - .050	9 - .112	15 - .187	
5 - .062	11 - .125	16 - .200	
6 - .075	12 - .150	17 - .212	

A3 System

Pin increments .018 / diameter of pins .108

1 - .018	6 - .108	11 - .198
2 - .036	7 - .126	12 - .216
3 - .054	8 - .144	13 - .234
4 - .072	9 - .162	
5 - .090	10 - .180	

A4 System

Pin increments .021 / diameter of pins .108

1 - .021	5 - .105	9 - .189
2 - .042	6 - .126	10 - .210
3 - .063	7 - .147	11 - .231
4 - .084	8 - .168	

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IC Spacing, Depths & Other Technical Info

IC Spacing

<u>Spacing</u>	<u>Depths</u>
Measured Tip to Bow	
From the Tip Stop to each cut:	0 = .3175
	1 = .305
To the first Space = .080	2 = .2925
To the second Space = .230	3 = .280
To the third Space = .380	4 = .2675
To the fourth Space = .530	5 = .255
To the fifth Space = .680	6 = .2425
To the sixth Space = .830	7 = .230
	8 = .2175
	9 = .205

IC Bottom Pins & Master Pins

<u>Bottom Pins</u>	<u>Master Pins</u>
Rounded to Nearest .001"	
BP 0 = .110	M2 - .025
BP 1 = .122	M3 - .037
BP 2 = .135	M4 - .050
BP 3 = .147	M5 - .062
BP 4 = .160	M6 - .075
BP 5 = .172	M7 - .087
BP 6 = .185	M8 - .100
BP 7 = .197	M9 - .112
BP 8 = .210	
BP 9 = .222	

Hexadecimal

A = 11	E = 15	I = 19
B = 12	F = 16	J = 20
C = 13	G = 17	K
D = 14	H = 18	

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I.C. Patterns

You should possess some working knowledge of Master Pinning or Keying when working with IC.

I will go over the basics with you. "O" = ODD / "E" = EVEN

A standard six pin I.C. Should contain one of the following or similar I.C. Patterns.

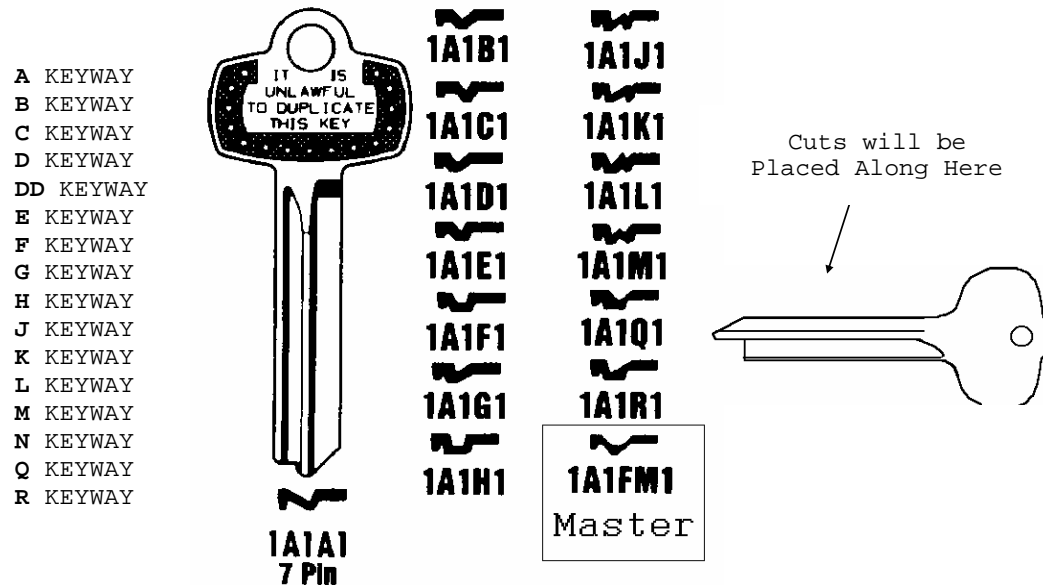
EOEOE	OEEOE	EOEOE	EOEEEO
EEEOE	OEEOE	EOEOE	EOEOE
EEEOE	OEEOE	EOEOE	EOEOE
EEEOE	OEEOE	EOEOE	OEEOE
EEEOE	EOEOE	EOEOE	OEEOE
EEEOE	EOEOE	EOEOE	OEEOE
EOEOE	OEEOE	EOEOE	EOEOE

Interchangeable Core Key Ways

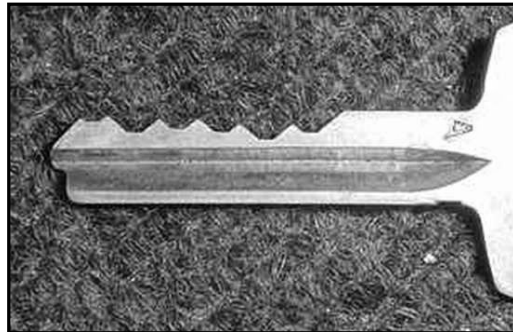
BEST / Falcon / AR / Usually Stamped

Stamped - "It Is Unlawful to Duplicate This Key"

There Is No ("I") it May Be Confused With The #1

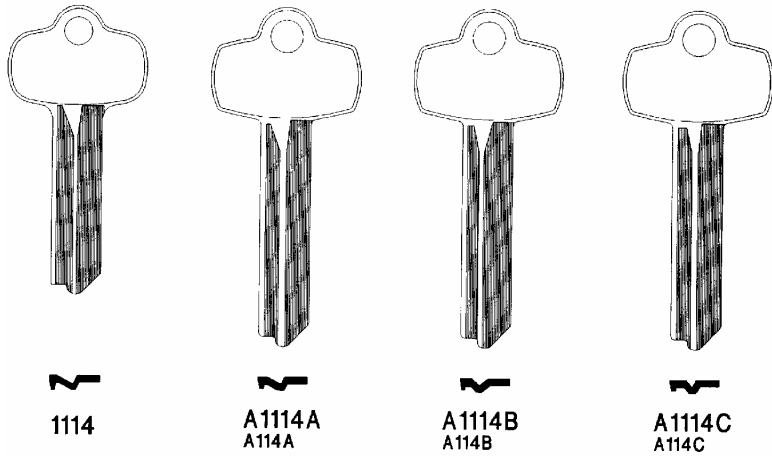


Holding the Key Bow in your right hand with the Tip facing to the left, this orientation will help facilitate you in Reading The Key.
Read the I.C. Key (as shown) left to right. The IC Key is Read from Tip To Bow. A guess would be 1 6 5 6 8 5. It is an "A" Keyway.

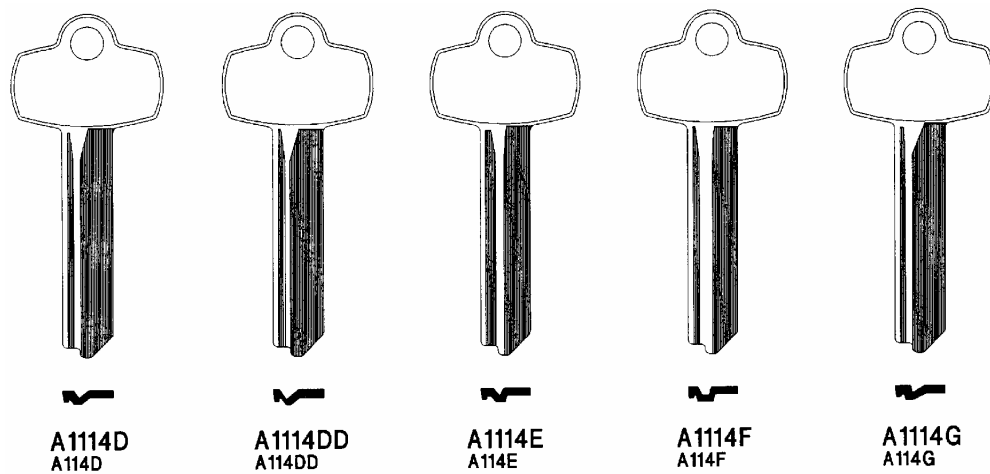


BEST Key ID's and Keyways

Arrow IC / Best IC

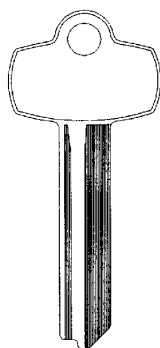


Arrow IC / Best IC

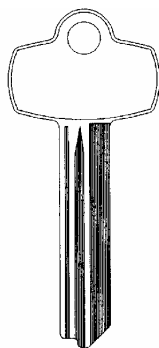


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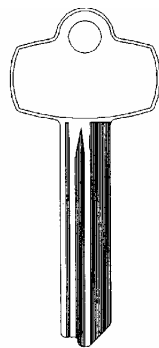
Arrow IC / Best IC



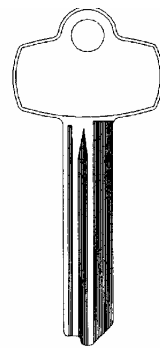
A1114H
A114H



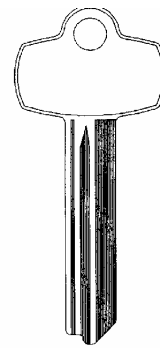
A1114J
A114J



A1114K
A114K

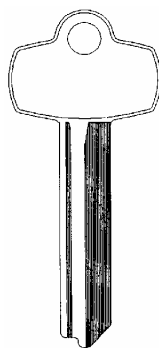


A1114L
A114L

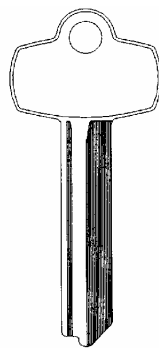


A1114M
A114GM

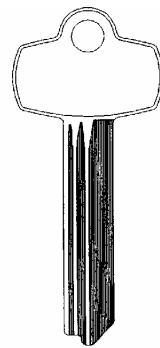
Arrow IC / Best IC



A1114Q



A1114R



A1114TB



(MASTER)
A1114FM
A114M

Falcon IC

Reading a Computer Printed Bittings Chart

When referring to the chart printed by a computer:

TMK - Theoretical Master Key will open any lock.

TMK 452322

Bitting - is the name given to the cuts of the actual single change key.

The key cut to this Bitting will only open that one individual lock.

Bitting 010100

Vert - **Vertical** block. The key cut to this number will operate any bitting marked directly below it with ("). It will also open any lock in the Vertical Block listed on the same line or with (") marks.

Vert
010122
"

Block
010102
"

Block - a key cut to this number will open any lock in that block with ("). Block 010102 "

Control 3 4 5 2 5 7 / TMK 452322

Key Id#	Bitting	Vert	Block
1-1	010100	010122	010102
1-2	010104	"	
1-3	010106	"	"
1-4	010108	"	"
1-5	010140	"	010142
1-6	010144	"	"
1-7	010146	"	"
1-8	010148	"	"
1-9	010160	"	010162
1-10	010164	"	"
1-11	010166	"	"
1-12	010168	"	"

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Interchangeable Core Key Bitting Chart

This is the chart used in the ASA Video/CD Interchangeable Core. It is provided here in order for you to follow along with the Video.

CLIENT > BOOK VIDEO I.C. CORE VIDEO 12/02/02

LOCK MANUFACTURER > BEST A2 REMOVABLE CORE
LOCK PLUG LENGTH > 6 PIN
PIN DEPTH SIZES > 0 TO 9
MAXIMUM ADJ CUT > 9
KEY BLANK SECTION > A
FILE REFERENCE # > 06

CONTROL KEY BITTING > 236523

THEORETICAL TMK BITTING > 563698

CHANGE KEY BITTING ARRAY > 101010
 325232
 747454
 989876

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Master Key List

BEST 6 PIN / CONTROL > 236523 > / TMK > 563698 PINNED > THEORETICAL

MASTERKEY DESIGNATION	BITTING	ID	QTY	OUT	NOTES
THEORETICAL MASTER	563698	TMK	4096	NO	
GROUP MASTER	163698	A	1024	NO	
BASE MASTER	103698	AA	256	NO	
PAGE MASTER 1	101698	AAA	64	NO	
PAGE MASTER 2	105698	AAB	64	NO	
PAGE MASTER 3	107698	AAC	64	NO	
PAGE MASTER 4	109698	AAD	64	NO	
BASE MASTER	123698	AB	256	NO	
PAGE MASTER 5	121698	ABA	64	NO	
PAGE MASTER 6	125698	ABB	64	NO	
PAGE MASTER 7	127698	ABC	64	NO	
PAGE MASTER 8	129698	ABD	64	NO	
BASE MASTER	143698	AC	256	NO	
PAGE MASTER 9	141698	ACA	64	NO	
PAGE MASTER 10	145698	ACB	64	NO	
PAGE MASTER 11	147698	ACC	64	NO	
PAGE MASTER 12	149698	ACD	64	NO	
BASE MASTER	183698	AD	256	NO	
PAGE MASTER 13	181698	ADA	64	NO	
PAGE MASTER 14	185698	ADB	64	NO	
PAGE MASTER 15	187698	ADC	64	NO	
PAGE MASTER 16	189698	ADD	64	NO	
GROUP MASTER	363698	B	1024	NO	
BASE MASTER	303698	BA	256	NO	
PAGE MASTER 17	301698	BAA	64	NO	
PAGE MASTER 18	305698	BAB	64	NO	
PAGE MASTER 19	307698	BAC	64	NO	
PAGE MASTER 20	309698	BAD	64	NO	
BASE MASTER	323698	BB	256	NO	
PAGE MASTER 21	321698	BBA	64	NO	
PAGE MASTER 22	325698	BBB	64	NO	
PAGE MASTER 23	327698	BBC	64	NO	
PAGE MASTER 24	329698	BBD	64	NO	
BASE MASTER	343698	BC	256	NO	
PAGE MASTER 25	341698	BCA	64	NO	
PAGE MASTER 26	345698	BCB	64	NO	
PAGE MASTER 27	347698	BCC	64	NO	
PAGE MASTER 28	349698	BCD	64	NO	
BASE MASTER	383698	BD	256	NO	
PAGE MASTER 29	381698	BDA	64	NO	
PAGE MASTER 30	385698	BDB	64	NO	
PAGE MASTER 31	387698	BDC	64	NO	
PAGE MASTER 32	389698	BDD	64	NO	
GROUP MASTER	763698	C	1024	NO	

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BASE MASTER		703698	CA	256	NO
PAGE MASTER 33		701698	CAA	64	NO
PAGE MASTER 34		705698	CAB	64	NO

Master Key List

BEST 6 PIN / CONTROL > 236523 / TMK > 563698 PINNED> THEORETICAL

MASTERKEY	DESIGNATION		BITTING	ID	QTY	OUT	NOTES
	PAGE MASTER	35	707698	CAC	64	NO	
	PAGE MASTER	36	709698	CAD	64	NO	
	BASE MASTER		723698	CB	256	NO	
	PAGE MASTER	37	721698	CBA	64	NO	
	PAGE MASTER	38	725698	CBB	64	NO	
	PAGE MASTER	39	727698	CBC	64	NO	
	PAGE MASTER	40	729698	CBD	64	NO	
	BASE MASTER		743698	CC	256	NO	
	PAGE MASTER	41	741698	CCA	64	NO	
	PAGE MASTER	42	745698	CCB	64	NO	
	PAGE MASTER	43	747698	CCC	64	NO	
	PAGE MASTER	44	749698	CCD	64	NO	
	BASE MASTER		783698	CD	256	NO	
	PAGE MASTER	45	781698	CDA	64	NO	
	PAGE MASTER	46	785698	CDB	64	NO	
	PAGE MASTER	47	787698	CDC	64	NO	
	PAGE MASTER	48	789698	CDD	64	NO	
GROUP MASTER			963698	D	1024	NO	
	BASE MASTER		903698	DA	256	NO	
	PAGE MASTER	49	901698	DAA	64	NO	
	PAGE MASTER	50	905698	DAB	64	NO	
	PAGE MASTER	51	907698	DAC	64	NO	
	PAGE MASTER	52	909698	DAD	64	NO	
	BASE MASTER		923698	DB	256	NO	
	PAGE MASTER	53	921698	DBA	64	NO	
	PAGE MASTER	54	925698	DBB	64	NO	
	PAGE MASTER	55	927698	DBC	64	NO	
	PAGE MASTER	56	929698	DBD	64	NO	
	BASE MASTER		943698	DC	256	NO	
	PAGE MASTER	57	941698	DCA	64	NO	
	PAGE MASTER	58	945698	DCB	64	NO	
	PAGE MASTER	59	947698	DCC	64	NO	
	PAGE MASTER	60	949698	DCD	64	NO	
	BASE MASTER		983698	DD	256	NO	
	PAGE MASTER	61	981698	DDA	64	NO	
	PAGE MASTER	62	985698	DDB	64	NO	
	PAGE MASTER	63	987698	DDC	64	NO	
	PAGE MASTER	64	989698	DDD	64	NO	

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Change Key List 1

BEST 6 PIN / CONTROL > 236523 / TMK > 563698 PINNED > THEORETICAL

KEY#	KEY ID	PAGE	BITTING	STATUS	DATE	VERT	BLOCK	NOTES
1	AAA-1	1	101010		04/98	101098	101018	
2	AAA-2	1	101012		04/98	"	"	
3	AAA-3	1	101014		04/98	"	"	
4	AAA-4	1	101016		04/98	"	"	
5	AAA-5	1	101030		04/98	"	101038	
6	AAA-6	1	101032		04/98	"	"	
7	AAA-7	1	101034		04/98	"	"	
8	AAA-8	I	101036		04/98	"	"	
9	AAA-9	1	101050		04/98	"	101058	
10	AAA-10	1	101052		04/98	"	"	
11	AAA-11	1	101054		04/98	"	"	
12	AAA-12	1	101056		04/98	"	"	
13	AAA-13	1	101070		04/98	"	101078	
14	AAA-14	1	101072		04/98	"	"	
15	AAA-15	1	101074		04/98	"	"	
16	AAA-16	1	101076		04/98	"	"	
17	AAA-17	1	101210		04/98	101298	101218	
18	AAA-18	1	101212		04/98	"	"	
19	AAA-19	1	101214		04/98	"	"	
20	AAA-20	1	101216		04/98	"	"	
21	AAA-21	1	101230		04/98	"	101238	
22	AAA-22	1	101232		04/98	"	"	
23	AAA-23	1	101234		04/98	"	"	
24	AAA-24	I	101236		04/98	"	"	
25	AAA-25	1	101250		04/98	"	101258	
26	AAA-26	1	101252		04/98	"	"	
27	AAA-27	1	101254		04/98	"	"	
28	AAA-28	1	101256		04/98	"	"	
29	AAA-29	1	101270		04/98	"	101278	
30	AAA-30	1	101272		04/98	"	"	
31	AAA-31	1	101274		04/98	"	"	
32	AAA-32	1	101276		04/98	"	"	
33	AAA-33	1	101410		04/98	101498	101418	
34	AAA-34	1	101412		04/98	"	"	
35	AAA-35	1	101414		04/98	"	"	
36	AAA-36	1	101416		04/98	"	"	
37	AAA-37	1	101430		04/98	"	101438	
38	AAA-38	1	101432		04/98	"	"	
39	AAA-39	1	101434		04/98	"	"	
40	AAA-40	1	101436		04/98	"	"	
41	AAA-41	1	101450		04/98	"	101458	
42	AAA-42	1	101452		04/98	"	"	
43	AAA-43	1	101454		04/98	"	"	
44	AAA-44	1	101456		04/98	"	"	

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45 AAA-45	1	101470	04/98	"	101478
46 AAA-46	1	101472	04/98	"	"
47 AAA-47	1	101474	04/98	"	"

Change Key List 1

BEST 6 PIN / CONTROL > 236523 / TMK > 563698 PINNED > THEORETICAL

KEY#	KEY ID	PAGE	BITTING	STATUS	DATE	VERT	BLOCK	NOTES
48	AAA-48	1	101476		04/98	"	"	
49	AAA-49	1	101810		04/98	101898	101818	
50	AAA-50	1	101812		04/98	"	"	
51	AAA-51	1	101814		04/98	"	"	
52	AAA-52	1	101816		04/98	"	"	
53	AAA-53	1	101830		04/98	"	101838	
54	AAA-54	1	101832		04/98	"	"	
55	AAA-55	1	101834		04/98	"	"	
56	AAA-56	1	101836		04/98	"	"	
57	AAA-57	1	101850		04/98	"	101858	
58	AAA-58	1	101852		04/98	"	"	
59	AAA-59	1	101854		04/98	"	"	
60	AAA-60	1	101856		04/98	"	"	
61	AAA-61	1	101870		04/98	"	101878	
62	AAA-62	1	101872		04/98	"	"	
63	AAA-63	1	101874		04/98	"	"	
64	AAA-64	1	101876		04/98	"	"	

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Change Key List Page 2

BEST 6 PIN / CONTROL > 236523 / TMK > 563698 PINNED > THEORETICAL

KEY#	KEY ID	PAGE	BITTING	STATUS	DATE	VERT	BLOCK	NOTES
65	AAB-1	2	105010		04/98	105098	105018	
66	AAB-2	2	105012		04/98	"	"	
67	AAB-3	2	105014		04/98	"	"	
68	AAB-4	2	105016		04/98	"	"	
69	AAB-5	2	105030		04/98	"	105038	
70	AAB-6	2	105032		04/98	"	"	
71	AAB-7	2	105034		04/98	"	"	
72	AAB-8	2	105036		04/98	"	"	
73	AAB-9	2	105050		04/98	"	105058	
74	AAB-10	2	105052		04/98	"	"	
75	AAB-11	2	105054		04/98	"	"	
76	AAB-12	2	105056		04/98	"	"	
77	AAB-13	2	105070		04/98	"	105078	
78	AAB-14	2	105072		04/98	"	"	
79	AAB-15	2	105074		04/98	"	"	
80	AAB-16	2	105076		04/98	"	"	
81	AAB-17	2	105210		04/98	105298	105218	
82	AAB-18	2	105212		04/98	"	"	
83	AAB-19	2	105214		04/98	"	"	
84	AAB-20	2	105216		04/98	"	"	
85	AAB-21	2	105230		04/98	"	105238	
86	AAB-22	2	105232		04/98	"	"	
87	AAB-23	2	105234		04/98	"	"	
88	AAB-24	2	105236		04/98	"	"	
89	AAB-25	2	105250		04/98	"	105258	
90	AAB-26	2	105252		04/98	"	"	
91	AAB-27	2	105254		04/98	"	"	
92	AAB-28	2	105256		04/98	"	"	
93	AAB-29	2	105270		04/98	"	105278	
94	AAB-30	2	105272		04/98	"	"	
95	AAB-31	2	105274		04/98	"	"	
96	AAB-32	2	105276		04/98	"	"	
97	AAB-33	2	105410		04/98	105498	105418	
98	AAB-34	2	105412		04/98	"	"	
99	AAB-35	2	105414		04/98	"	"	
100	AAB-36	2	105416		04/98	"	"	
101	AAB-37	2	105430		04/98	"	105438	
102	AAB-38	2	105432		04/98	"	"	
103	AAB-39	2	105434		04/98	"	"	
104	AAB-40	2	105436		04/98	"	"	
105	AAB-41	2	105450		04/98	"	105458	
106	AAB-42	2	105452		04/98	"	"	
107	AAB-43	2	105454		04/98	"	"	
108	AAB-44	2	105456		04/98	"	"	

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109	AAB-45	2	105470	04/98	"	105478
110	AAB-46	2	105472	04/98	"	"
111	AAB-47	2	105474	04/98	"	"

Change Key List Page 2

BEST 6 PIN / CONTROL > 236523 / TMK > 563698 PINNED > THEORETICAL

KEY#	KEY ID	PAGE	BITTING	STATUS	DATE	VERT	BLOCK	NOTES
112	AAB-48	2	105476		04/98	"	"	
113	AAB-49	2	105810		04/98	105898	105818	
114	AAB-50	2	105812		04/98	"	"	
115	AAB-51	2	105814		04/98	"	"	
116	AAB-52	2	105816		04/98	"	"	
117	AAB-53	2	105830		04/98	"	105838	
118	AAB-54	2	105832		04/98	"	"	
119	AAB-55	2	105834		04/98	"	"	
120	AAB-56	2	105836		04/98	"	"	
121	AAB-57	2	105850		04/98	"	105858	
122	AAB-58	2	105852		04/98	"	"	
123	AAB-59	2	105854		04/98	"	"	
124	AAB-60	2	105856		04/98	"	"	
125	AAB-61	2	105870		04/98	"	105878	
126	AAB-62	2	105872		04/98	"	"	
127	AAB-63	2	105874		04/98	"	"	
128	AAB-64	2	105876		04/98	"	"	

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Pinning Chart Page 1

BEST 6 PIN / CONTROL > 236523 / TMK > 563698 PINNED> THEORETICAL
 SPECIAL PIN SIZES > A=10 B=11 C=12 D=13 E=14 F=15 G=16 H=17 I=18

KEY#	KEY ID	PAGE	BITTING	BOTTOM	MASTER	CONTROL	DRIVERS	NOTES
1	AAA-1	1	101010	101010	462688	77D93	BA7SBA	
						5		
2	AAA-2	1	101012	101012	462686	77D93	BA78BA	
						5		
3	AAA-3	1	101014	101014	462684	77D93	BA7SBA	
						5		
4	AAA-4	1	101016	101016	462682	77D93	BA78BA	
						5		
5	AAA-5	1	101030	101030	462668	77D93	BA78BA	
						5		
6	AAA-6	1	101032	101032	462666	77D93	BA78BA	
7	AAA-7	1	101034	101034	462664	5	BA7SBA	
						77D93		
						5		
8	AAA-8	1	101036	101036	462662	77D93	BA78BA	
						5		
9	AAA-9	1	101050	101050	462648	77D93	BA7SBA	
						5		
10	AAA-10	1	101052	101052	462646	77D93	BA78BA	
						5		
11	AAA-11	1	101054	101054	462644	77D93	BA7SBA	
						5		
12	AAA-12	1	101056	101056	462642	77D93	BA78BA	
						5		
13	AAA-13	1	101070	101070	462628	77D93	BA78BA	
14	AAA-14	1	101072	101072	462626	5	BA78BA	
						77D93		
						5		
15	AAA-15	1	101074	101074	462624	77D93	BA78BA	
						5		
16	AAA-16	1	101076	101076	462622	77D93	BA78BA	
						5		
17	AAA-17	1	101210	101210	462488	77D93	BA78BA	
						5		
18	AAA-18	1	101212	101212	462486	77D93	BA78BA	
						5		
19	AAA-19	1	101214	101214	462484	77D93	BA7SBA	
						5		
20	AAA-20	1	101216	101216	462482	77D93	BA78BA	
						5		
21	AAA-21	1	101230	101230	462468	77D93	BA78BA	
						5		
22	AAA-22	1	101232	101232	462466	77D93	BA78BA	

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23	AAA-23	1	101234	101234	462464	5 77D93	BA78BA
24	AAA-24	1	101236	101236	462462	5 77D93	BA78BA
25	AAA-25	1	101250	101250	462448	5 77D93	BA78BA
26	AAA-26	1	101252	101252	462446	5 77D93	BA78BA
27	AAA-27	1	101254	101254	462444	5 77D93	BA78BA
28	AAA-28	1	101256	101256	462442	5 77D93	BA78BA
29	AAA-29	1	101270	101270	462428	5 77D93	BA78BA
30	AAA-30	1	101272	101272	462426	5 77D93	BA78BA
31	AAA-31	1	101274	101274	462424	5 77D93	BA7SBA
32	AAA-32	1	101276	101276	462422	5 77D93	BA78BA
33	AAA-33	1	101410	101410	462288	5 77D93	BA78BA
34	AAA-34	1	101412	101412	462286	5 77D93	BA78BA
35	AAA-35	1	101414	101414	462284	5 77D93	BA78BA
36	AAA-36	1	101416	101416	462282	5 77D93	BA78BA
37	AAA-37	1	101430	101430	462268	5 77D93	BA78BA
38	AAA-38	1	101432	101432	462266	5 77D93	BA78BA
39	AAA-39	1	101434	101434	462264	5 77D93	BA78BA
40	AAA-40	1	101436	101436	462262	5 77D93	BA78BA
41	AAA-41	1	101450	101450	462248	5 77D93	BA78BA
42	AAA-42	1	101452	101452	462246	5 77D93	BA78BA
43	AAA-43	1	101454	101454	462244	5 77D93	BA78BA
44	AAA-44	1	101456	101456	462242	5 77D93	BA78BA
45	AAA-45	1	101470	101470	462228	5 77D93	BA78BA

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Pinning Chart Page 1

BEST 6 PIN CONTROL> 236523 TMK> 563698 PINNED> THEORETICAL

SPECIAL PIN SIZES > A=10 B=11 C=12 D=13 E=14 F=15 G=16 H=17 I=18

KEY#	KEY ID	PAGE	BITTING	BOTTOM	MASTER	CONTROL	DRIVERS
46	AAA-46	1	101472	101472	462226	77D935	BA78BA
47	AAA-47	1	101474	101474	462224	77D935	BA78BA
48	AAA-48	1	101476	101476	462222	77D935	BA78BA
49	AAA-49	1	101810	101610	462288	77D735	BA78BA
50	AAA-50	1	101812	101612	462286	77D735	BA78BA
51	AAA-51	1	101814	101614	462284	77D735	BA78BA
52	AAA-52	1	101816	101616	462282	77D735	BA7SBA
53	AAA-53	1	101830	101630	462268	77D735	BA78BA
54	AAA-54	1	101832	101632	462266	77D735	BA78BA
55	AAA-55	1	101834	101634	462264	77D735	BA78BA
56	AAA-56	1	101836	101636	462262	77D735	BA78BA
57	AAA-57	1	101850	101650	462248	77D735	BA78BA
58	AAA-58	1	101852	101652	462246	77D735	BA78BA
59	AAA-59	1	101854	101654	462244	77D735	BA78BA
60	AAA-60	1	101856	101656	462242	77D735	BA78BA
61	AAA-61	1	101870	101670	462228	77D735	BA78BA
62	AAA-62	1	101872	101672	462226	77D735	BA78BA
63	AAA-63	1	101874	101674	462224	77D735	BA78BA
64	AAA-64	1	101876	101676	462222	77D735	BA78BA

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Pinning Chart Page 2

BEST 6 PIN CONTROL> 236523 TMK> 563698 PINNED> THEORETICAL

SPECIAL PIN SIZES > A=10 B=11 C=12 D=13 E=14 F=15 G=16 H=17 I=18

KEY#

KEY	ID	PAGE	BITTING	BOTTOM	MASTER	CONTROL	DRIVERS
65	AAB-1	2	105010	103010	462688	77B935	BA78BA
66	AAB-2	2	105012	103012	462686	77B935	BA78BA
67	AAB-3	2	105014	103014	462684	77B935	BA78BA
68	AAB-4	2	105016	103016	462682	77B935	BA78BA
69	AAB-5	2	105030	103030	462668	77B935	BA78BA
70	AAB-6	2	105032	103032	462666	77B935	BA78BA
71	AAB-7	2	105034	103034	462664	77B935	BA78BA
72	AAB-8	2	105036	103036	462662	77B935	BA78BA
73	AAB-9	2	105050	103050	462648	77B935	BA78BA
74	AAB-10	2	105052	103052	462646	77B935	BA78BA
75	AAB-11	2	105054	103054	462644	77B935	BA7SBA
76	AAB-12	2	105056	103056	462642	77B935	BA78BA
77	AAB-13	2	105070	103070	462628	77B935	BA78BA
78	AAB-14	2	105072	103072	462626	77B935	BA78BA
79	AAB-15	2	105074	103074	462624	77B935	BA78BA
80	AAB-16	2	105076	103076	462622	77B935	BA78BA
81	AAB-17	2	105210	103210	462488	77B935	BA78BA
82	AAB-18	2	105212	103212	462486	77B935	BA78BA
83	AAB-19	2	105214	103214	462484	77B935	BA78BA
84	AAB-20	2	105216	103216	462482	77B935	BA78BA
85	AAB-21	2	105230	103230	462468	77B935	BA78BA
86	AAB-22	2	105232	103232	462466	77B935	BA78BA
87	AAB-23	2	105234	103234	462464	77B935	BA78BA
88	AAB-24	2	105236	103236	462462	77B935	BA78BA/
89	AAB-25	2	105250	103250	462448	77B935	BA78BA
90	AAB-26	2	105252	103252	462446	77B935	BA78BA
91	AAB-27	2	105254	103254	462444	77B935	BA78BA
92	AAB-28	2	105256	103256	462442	77B935	BA78BA
93	AAB-29	2	105270	103270	462428	77B935	BA78BA
94	AAB-30	2	105272	103272	462426	77B935	BA78BA
95	AAB-31	2	105274	103274	462424	77B935	BA78BA
96	AAB-32	2	105276	103276	462422	77B935	BA78BA
97	AAB-33	2	105410	103410	462288	77B935	BA78BA
98	AAB-34	2	105412	103412	462286	77B935	BA78BA
99	AAB-35	2	105414	103414	462284	77B935	BA78BA
100	AAB-36	2	105416	103416	462282	77B935	BA78BA
101	AAB-37	2	105430	103430	462268	77B935	BA78BA
102	AAB-38	2	105432	103432	462266	77B935	BA78BA
103	AAB-39	2	105434	103434	462264	77B935	BA78BA
104	AAB-40	2	105436	103436	462262	77B935	BA78BA
105	AAB-41	2	105450	103450	462248	77B935	BA78BA
106	AAB-42	2	105452	103452	462246	77B935	BA78BA
107	AAB-43	2	105454	103454	462244	77B935	BA7SBA
108	AAB-44	2	105456	103456	462242	77B935	BA78BA
109	AAB-45	2	105470	103470	462228	77B935	BA78BA

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Pinning Chart Page 2

BEST 6 PIN CONTROL> 236523 TMK> 563698 PINNED> THEORETICAL

SPECIAL PIN SIZES > A=10 B=11 C=12 D=13 E=14 F=15 G=16 H=17 I=18

KEY#	KEY ID	PAGE	BITTING	BOTTOM	MASTER	CONTROL	DRIVERS
110	AAB-46	2	105472	103472	462226	77B935	BA78BA
111	AAB-47	2	105474	103474	462224	77B935	BA78BA
112	AAB-48	2	105476	103476	462222	77B935	BA7SBA
113	AAB-49	2	105810	103610	462288	77B735	BA78BA
114	AAB-50	2	105812	103612	462286	77B735	BA78BA
115	AAB-51	2	105814	103614	462284	77B735	BA78BA
116	AAB-52	2	105816	103616	462282	77B735	BA78BA
117	AAB-53	2	105830	103630	462268	77B735	BA78BA
118	AAB-54	2	105832	103632	462266	77B735	BA78BA
119	AAB-55	2	105834	103634	462264	77B735	BA78BA
120	AAB-56	2	105836	103636	462262	77B735	BA78BA
121	AAB-57	2	105850	103650	462248	77B735	BA78BA
122	AAB-58	2	105852	103652	462246	77B735	BA78BA
123	AAB-59	2	105854	103654	462244	77B735	BA78BA
124	AAB-60	2	105856	103656	462242	77B735	BA78BA
125	AAB-61	2	105870	103670	462228	77B735	BA78BA
126	AAB-62	2	105872	103672	462226	77B735	BA78BA
127	AAB-63	2	105874	103674	462224	77B735	BA78BA
128	AAB-64	2	105876	103676	462222	77B735	BA78BA

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Simple to Create, JC / IC System Pinning Chart #1

To work out an IC System pinning sequence in an emergency, use the following **brief** guide to help you pin a basic I.C. System:

Our Control Number \longrightarrow Control Key : 6 5 8 7 6 9

Change Key Number \longrightarrow Change Key : 2 7 6 9 6 5

Record the **Bottom Pin** \longrightarrow 2 7 6 9 6 5

Add 10 To Your Control
Number. (10's) 16 15 18 17 16 19

Subtract The Bottom Pin →
From The 2 7 6 9 6 5
"10's" Control Number

"10's" Control Number → 14 8 12 8 10 14

23 is the Total Stack Allowed \longrightarrow 23 23 23 23 23 23

Subtract the "10's" \longrightarrow
From 23 = Driver 16 15 18 17 16 19

Driver \longrightarrow 7 8 5 6 7 4

Driver.....	7	8	5	6	7	4
Control Pin.....	14	8	12	8	10	14
Bottom Pin.....	2	7	6	9	6	5

You probably would use the same Control Number throughout the IC System. You might even utilize the same Change Key Number as well and continually only change the Bottom Pin Number.

The same change Key is used for removing all of the IC Systems Cores and Individual "Operating Keys" are cut in order for Individual Lock Operation.

I have shown this example here for those who are not able to set up a computer generated program.

*Please Note: This is only a **"short, short cut"** (JC) in order to crudely set up a six pin IC System.

Further study should be sought when indulging in this field.

I use a computer generated program when setting up an IC System.

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Advanced Simple to Create, JC / IC System Pinning Chart #2

The following chart is my own design & creation for computing an I.C. System. I hope that it is easy for you to follow. I thought it was easy to use and I have used this system for hundreds of I.C. Jobs.

It was the best I had.

I now use a computer and Master Key Program to generate I.C. Systems.

My chart is to help those who need to create a quick easy system.

Feel free to copy the blank chart and use it (courtesy of JCII).

Numbers are chosen at random. Keep in mind one should usually utilize an even / odd sequence.

Example:

Control Key #.....3	6	0	1	3	0
Master Key #.....1	0	0	3	5	4
Change Key #.....5	3	2	8	6	5

**The Bottom Pins are Derived
by Choosing**

the lesser of the two
numbers displayed
Between the
Change key # and
Master Key #

Master Key #.....1	0	0	3	5	4
Change Key #.....5	3	2	8	6	5

*Note: In this case all of the Master Key Numbers happen to be the lesser of the two numbers to choose from. This is not always the case.

Which Gives you the

Bottom Pins.....1	0	0	3	5	4
-------------------	---	---	---	---	---

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**The Master Pins are Derived
By Subtracting**

the Bottom Pins1	0	0	3	5	4
from					
The Change Key #5	3	2	8	6	5
Which Gives you the					
Master Pins.....4	3	2	5	1	1

Double Check Your Math
Bottom pin plus
Master pin #

Which Gives you the					
Change key #5	3	2	8	6	5

**The Control Pins are Derived
By Subtracting**

Control Key #.....3	6	0	1	3	0
Control # plus 10.....13	16	10	11	13	10
Subtract					
Change key #.....5	3	2	8	6	5
from					
Control Key # plus 1013	16	10	11	13	10
Which Gives you the					
Control Pins8	13	8	3	7	5

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The Driver Pins are Derived
By Subtracting

Subtract from 23
 (Our total allowable Pin Stack)

	23	23	23	23	23	23
Control # plus 10	13	16	10	11	13	10

Which Gives you the
Driver Pins.....10 7 13 12 10 13

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*Summary of the Advanced Simple to Create, JC / IC System
Pinning Chart #2*

Control Key #.....3	6	0	1	3	0
Master Key #.....1	0	0	3	5	4
Change Key #.....5	3	2	8	6	5

Driver Pins.....10	7	13	12	10	13
Control Pins.....8	13	8	3	7	5
Master Pins.....4	3	2	5	1	1
Bottom Pins.....1	0	0	3	5	4

The Control key and the master Key may remain a constant while simply changing the Change Key number.
If you practice this system you will find it is quite easy to use.

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Advanced Simple to Create, JC / IC System Pinning Chart #2

Control Key #.....__ __ __ __ __ __

Master Key #.....__ __ __ __ __ __

Change Key #.....__ __ __ __ __ __

The Bottom Pins are Derived by Choosing

the lesser of the two
numbers displayed
Between the
Change key # and
Master Key #

Master Key #.....__ __ __ __ __ __

Change Key #.....__ __ __ __ __ __

Which Gives you the
Bottom Pins.....__ __ __ __ __ __

The Master Pins are Derived By Subtracting

the **Bottom Pins**.....__ __ __ __ __ __
from
The **Change Key #**.....__ __ __ __ __ __

Which Gives you the
Master Pins.....__ __ __ __ __ __

Double Check Your Math

Bottom pin plus.....__ __ __ __ __ __

Master pin #.....__ __ __ __ __ __

Which Gives you the
Change key #.....__ __ __ __ __ __

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The Control Pins are Derived
By Subtracting

Control Key #.....__ __ __ __ __ __

Control # plus 10.....__ __ __ __ __ __

Subtract

Change key #.....__ __ __ __ __ __

From

Control Key # plus 10.....__ __ __ __ __ __

Which Gives you the

Control Pins.....__ __ __ __ __ __

The Driver Pins are Derived
By Subtracting

Subtract from 23

(Our total allowable Pin Stack)

..... 23 23 23 23 23 23


Control # plus 10.....__ __ __ __ __ __


Which Gives you the


Driver Pins.....__ __ __ __ __ __


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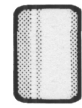
*Summary of the Advanced Simple to Create, JC / IC System Pinning
Chart #2*


Control Key #.....__ __ __ __ __ __ 

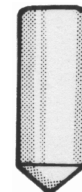
Master Key #.....__ __ __ __ __ __ 

Change Key #.....__ __ __ __ __ __ 

Driver Pins.....__ __ __ __ __ __ 

Control Pins.....__ __ __ __ __ __ 

Master Pins.....__ __ __ __ __ __ 

Bottom Pins.....__ __ __ __ __ __ 

The Control Key and the Master Key may remain a constant while simply changing the Change Key number.
If you practice this IC System you will find it is quite easy to use.

Installing & Removing The I.C. Core

IC Ways Possible Which Are "BEST".

You will find yourself at many commercial or industrial job sites with frustrated occupants complaining or wanting their Locks Rekeyed.

The Locks are Interchangeable Core (I.C.) and the "Locksmith" who performed the installation is unknown or not wanted.

Thus there is no Bittings Chart.

If the installing "Locksmith" failed or neglected to give the Bittings chart to the Client, this would then be considered stealing. The Client who has already paid good money for the Security System to a supposed Security Specialist would be feeling a bit agitated at this point. Blackmail if you will. The client must return to the same "Locksmith" for work or they must start all over again with a new expensive Security System. It is similar to the licensed Alarm Installer who retains (steals) the Installer Code after installing an electronic Security System. This is outright theft! Positive Ethics©.

If the Client has paid for that Security System, then they are entitled to the Bittings Chart.

The Client has no idea of what a Bittings Chart is, let alone where it is.

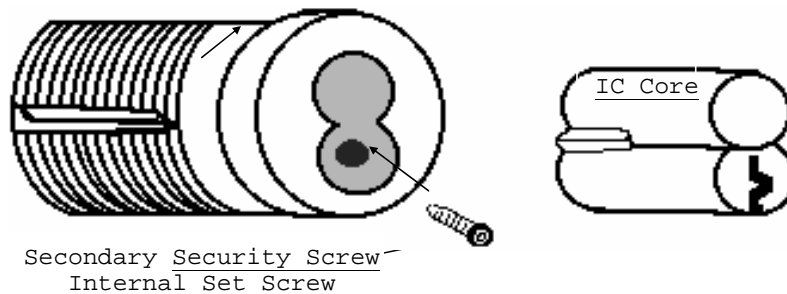
Without the chart the Client is in a tough situation.

- You could Drill Out every core and replace them. \$\$\$.
- You could Drill for the Control, if you know how.

Without a Bittings Chart, or Control Key to remove the cores you will have trouble.

This Secondary Security Screw, when installed, makes removal of the Mortise Cylinder I.C. Shell very difficult.

Mortise Cylinder I.C. Shell and Core



Secondary Security Screw
Internal Set Screw

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IC Drilling as another option

You can render the core useless by drilling for the shear line like other locks, but you would not have a Control Key.

The drilling process may be accomplished several ways.

- You can just drill the plug as usual, drilling for a Shear Line.

- You could Drill for the Control if you know how and where to drill.

The Best way to remove this Core is with the correct Control Key.

However, if the correct Control Key Cuts are not known then you must resort to other methods.

One way is to Pick the Lock. I know that it sounds almost impossible but it can be accomplished.

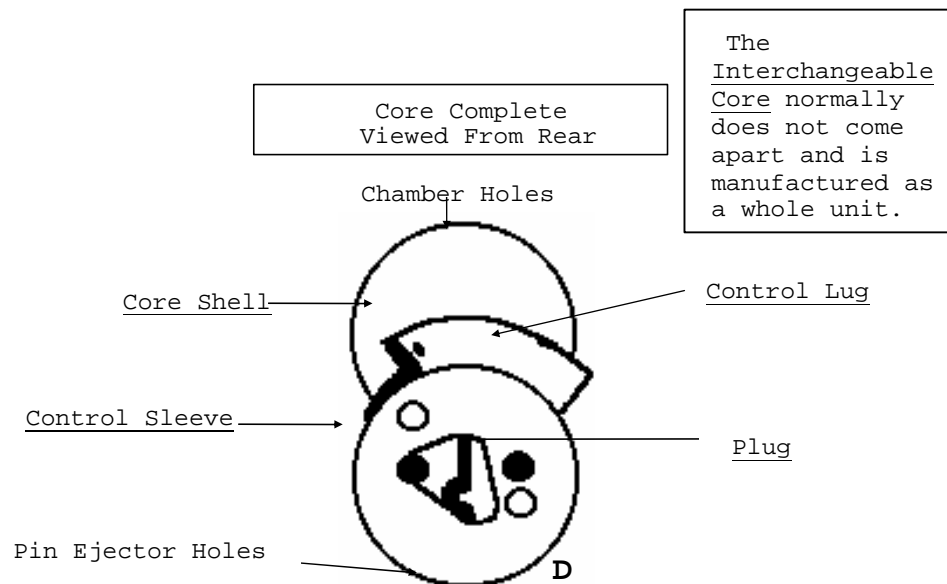
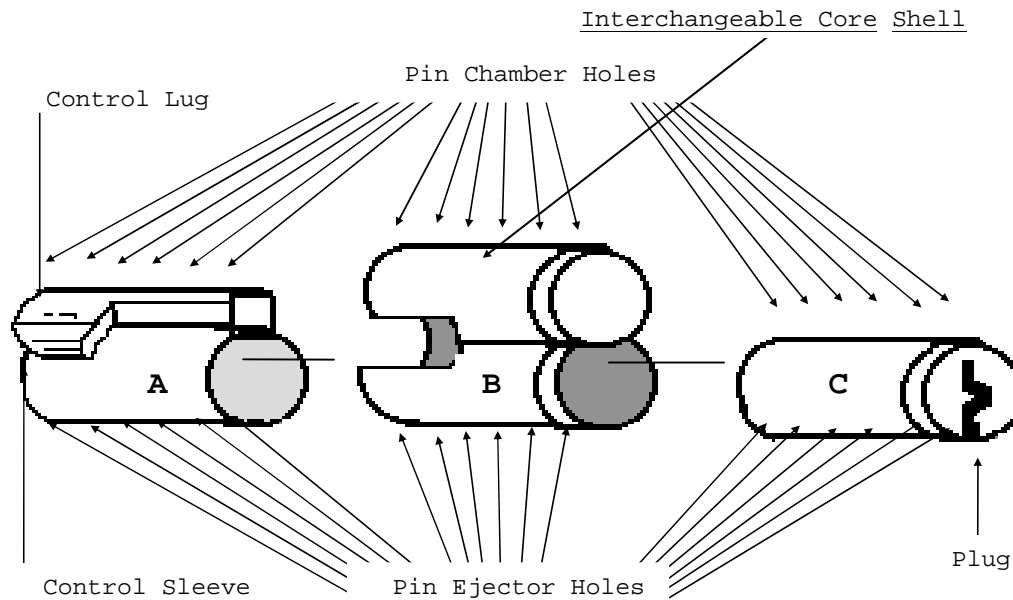
With the different Shear Lines; possibly seven Pin Chambers, along with all of the Pins, one hardly knows where to begin when attempting to pick this little wonder.

If you pick the lock normally, at Best you might Unlock it.

But we want to remove the core and decode the Control Keys cuts.

IC Picture This Too

The control sleeve is just that, a sleeve that fits around the plug. Notice the plug turns inside the sleeve.



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IC Core Removal JCII Pick Tool

In the bottom of the sleeve are holes.

These are the holes that allow us to use a Pin Ejector when Rekeying this type of Lock.

The thickness of this sleeve is around .015".

If you file a Tension Wrench with one or more notches in it, it is possible to catch one of these Sleeve Holes and apply pressure directly to the sleeve for Picking.

This can be done and it will greatly improve your chances of Picking this type of I.C. Lock.

I slid a Tension Wrench into an IC Core and at each chamber location from the bottom of the lock, I made a scratch mark on my Tension Wrench. I then filed with a square file on either side of the scratch mark. Thus leaving a tooth where the scratch is.



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Each tooth should grab a chamber ejection hole at the bottom of the cylinder or at least at best two or three.

In any case this is what one wishes to turn in order to remove a core for dissection and De-Coding.

Now, Pick the Pins with this Modified Tension Wrench while turning the Core in a Clockwise rotation. When it turns a quarter turn Clockwise, extract the core.

A regular tension Wrench may be utilized if one grabs a hole with the very tip of the Tension Wrench.

If one wishes to gain entry pick as usual, but remember you still do not have any keys.

If one removes the core, it may then be Decoded.

Each Pin Chamber has its Pin Stack removed, and each pin is calibrated and recorded with a micrometer.

Thus a control key may be acquired as well as a Master key and or change Key. Chamber by Chamber.

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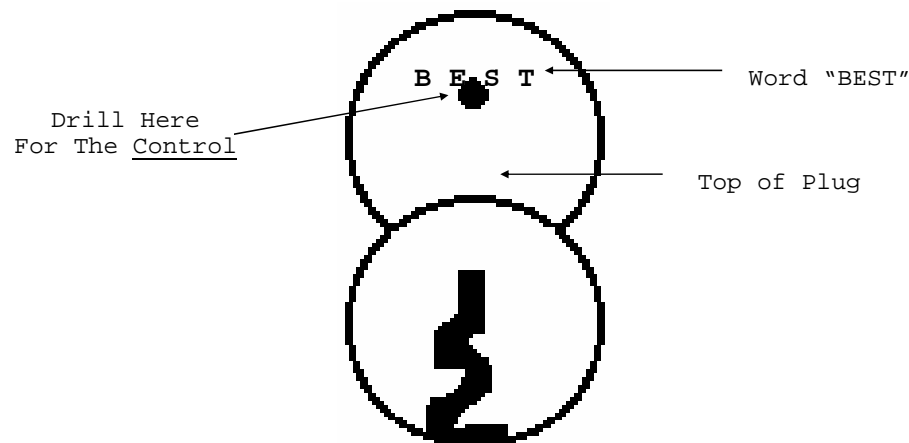
IC Drilling as an Option and IC Drilling for the Control

DIC or Drilling Interchangeable Core.

If you have to drill but would like to Decode the lock for the Control Key cuts, try the following:

- Insert a Blank into the Key Way. This will push the Drivers up and out of the way.
- Use a Center Punch and mark where you will drill. The I.C. May be drilled using a 1/8" drill bit and drilling below the "E" and the "S" in "BEST". Experience will dictate where on an unmarked core.
- Count the Pin Stacks as you drill and drill only through the number of Pin Stacks that you counted.
- Apply turning pressure to the Plug while removing the drill bit.

In this case you would be trying to go for the Control.



Where you drill from the top of the plug to the word "BEST" will dictate your intentions.

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IC Drilling to Unlock

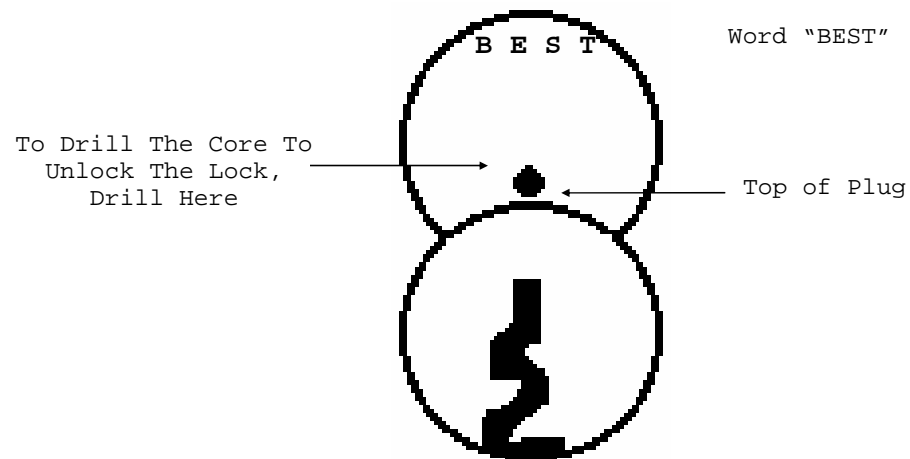
If you wanted to drill the Interchangeable Core to Unlock the Lock you would drill lower, closer to the plug.

The Lock would be Unlocked but you would not have a Core Key.

The Core Key is very important especially if you are to work on more than one I.C..

Sometimes you will find yourself drilling and re-drilling some cores, over and over. The hole you drill gets bigger and bigger and oh boy what a mess.

Just take it slow and easy and you will be all right.



**Everything does not work perfect every time,
You will have good jobs & bad jobs.**

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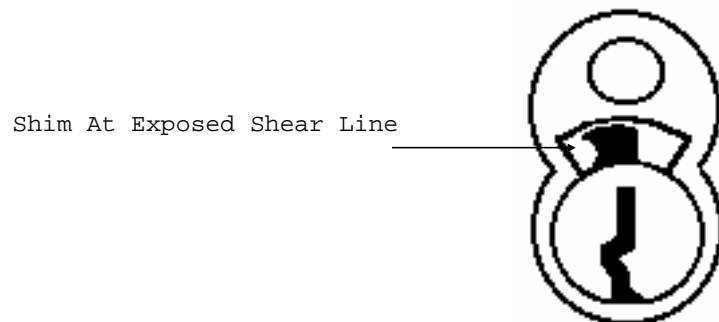
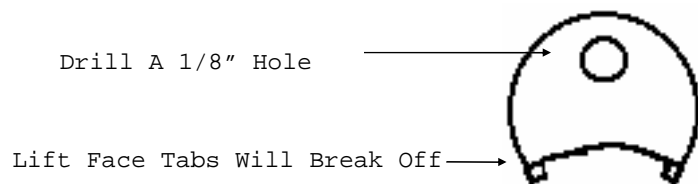
IC You Can Shim the Interchangeable Core

or

So IC I have been told

This would be a good solution if you had several locks to work on and needed the Control.

- Drill a 1/8" hole.
- Drill just deep enough to penetrate the outer Shell of the Core, approximately 1/16".
- Use a punch or pointed object and tap this at an angle into the hole. Lifting the face away from the Core Body.
- The face will break free from the Core exposing the Control Shear Line.
- Now Shim Pick in the usual manner.



Decoding for Control

Once a core is removed from its housing, it is time to decode using the following systems:

A2 System

- Measure the drivers decimal length.
- Divide the decimal length by .0125 . Do this to the nearest whole number.
- Subtract this number from 13.
- The answer is the control bitting.

A3 System

- Measure the driver's decimal length.
- Divide the decimal length by .018 . Do this to the nearest whole number.
- Subtract this number from 9.
- The answer is the control bitting.

A4 System

- Measure the driver's decimal length.
- Divide the decimal length by .021 . Do this to the nearest whole number.
- Subtract this number from 8.
- The answer is the control bitting.

Interchangeable Core Trap Core

IC How To Thwart Unauthorized Opening of I.C. Cylinders

A Lock Trap may be warranted when someone is gaining entry with an un authorized key.

The trap will retain the unauthorized Key for you to retrieve and take off the street.

The Trap Core can be installed and removed without trapping the Control Key.

This Key Retention method is a great way to collect extra unknown keys.

There are three ways to make a Trap Core:

- Trap Core: to trap a key which is turned either way the Key is turned.
- Right Hand Trap Core: to Trap A Key if the key is turned to the right.
- Left hand trap core: to Trap A Key if the key is turned to the left.

The first method is used with regular Locks as in Key In Knob Locks.

The second and third method is for Deadbolt Locks.

This depends on the Hand of Door.

When Trapping A Key with the key Trap used in a Deadbolt application, it is advisable to trap the key in the Un-Locking (bolt withdrawing) direction.

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IC Interchangeable Core Trap Core

Knob / Lever Type Lock Either Direction

Start by Combining a core but, you would leave the last Pin Chamber empty. Remember that this key is read tip to bow.
The last Cut is the cut next to the Bow.

Insert the proper key and turn the Plug 45 degrees to the right (Clock Wise) . Using a 7/62" drill bit, drill into the empty seventh Pin chamber and into the plug 1/16". Turn the key 45 degrees to the left and repeat the previous procedure.

Remove the key and Re-Combine the seventh Pin Chamber.

IC Trap Core / Withdrawing Bolt/ Latch Trap

Deadbolt / Left Hand / Left Hand Reverse

Start by Combining a Core but you would leave the last Pin Chamber empty. Remember that this Key is read tip to bow. The last Cut is the cut next to the bow.

Insert the proper Key and turn the Plug 45 degrees to the left (Counter Clockwise). Using a 7/62" drill bit, drill into the empty seventh Pin Chamber and into the Plug 1/16'.

Remove the Key and Re-Combine the seventh Pin Chamber.

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IC Trap Core / Withdrawing Bolt Trap

Deadbolt / Right Hand / Right Hand Reverse

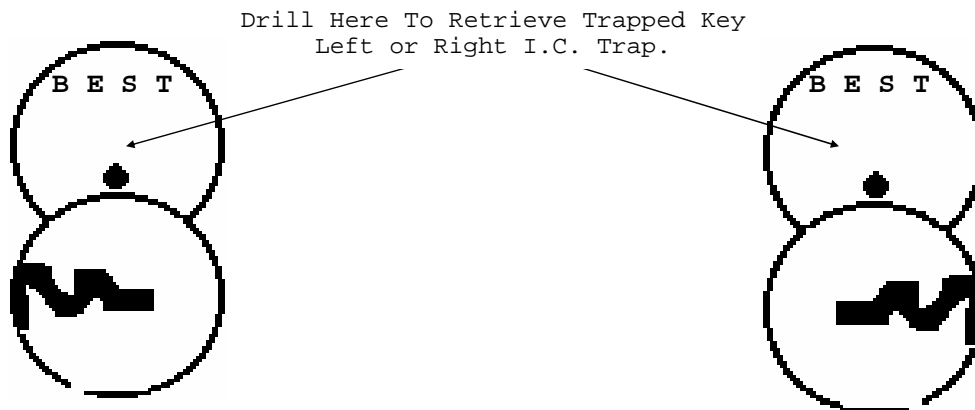
Start by Combining an I.C. Core but you would leave the last Pin Chamber empty. Remember that this Key is read tip to Bow. The last cut is the cut next to the Key Bow.

Insert the proper Key and turn the Plug 45 degrees to the right (Clockwise) . Using a 7/62" drill bit, drill into the empty seventh Pin Chamber and into the plug 1/16'.

Remove the Key and Re-Combine the seventh Pin Chamber.
Removal of the trapped key

The removal is as follows:

- Drill a 9/64' hole in the core just below the "ES" in the name best. Drill the hole into the seventh pin chamber and pin stack.
- You may now use the Trapped Key in the normal manner. And remove it.
- The Control Key may now be used to remove the Core.



Quick Client Rekey

"JC's I.C. Six Pack©"

Another "JC II" Original

I devised the following "I.C. Six Pack©" system for businesses that wanted a real quick fix on a moments notice.

The local "locksmiths" would use Interchangeable Core systems on their customer's doors and retain the Bittings chart. The locksmiths would be paid very, very well.

The locksmiths could never be reached when needed and the customers felt "locked in."

I would key up a half dozen cores with:

- One master key to fit all of the cores.
- One Control Key to fit all of the cores.
- Six change keys to a group and each group fit an individual core. 6x6.
- All keys would be stamped in laymen's letters.

I then would place these "I.C. Six Pack©" in a small plastic box with my calling card. I would carry several of these

"I.C. Six Pack©" in my service vehicle. Very, very handy indeed.

The manager would be given the instructions of how to remove a core and what keys did what.

Written instructions are always a plus.

Usually they would keep the "I.C. Six Pack©" in a safe. I knew one woman who took the "I.C. Six Pack©" home with her to her alarmed house. Another man who kept the "I.C. Six Pack©" off premise in a safe.

My card with my phone number would be called when the manager changed any cores. There was no immediate rush to get to the client on my end and the client could Re-Key anytime he or she wanted to.

This "I.C. Six Pack©" system works great.

Especially if you know the building ahead of time and could Rekey the cores custom.

The cores are reusable over and over again.

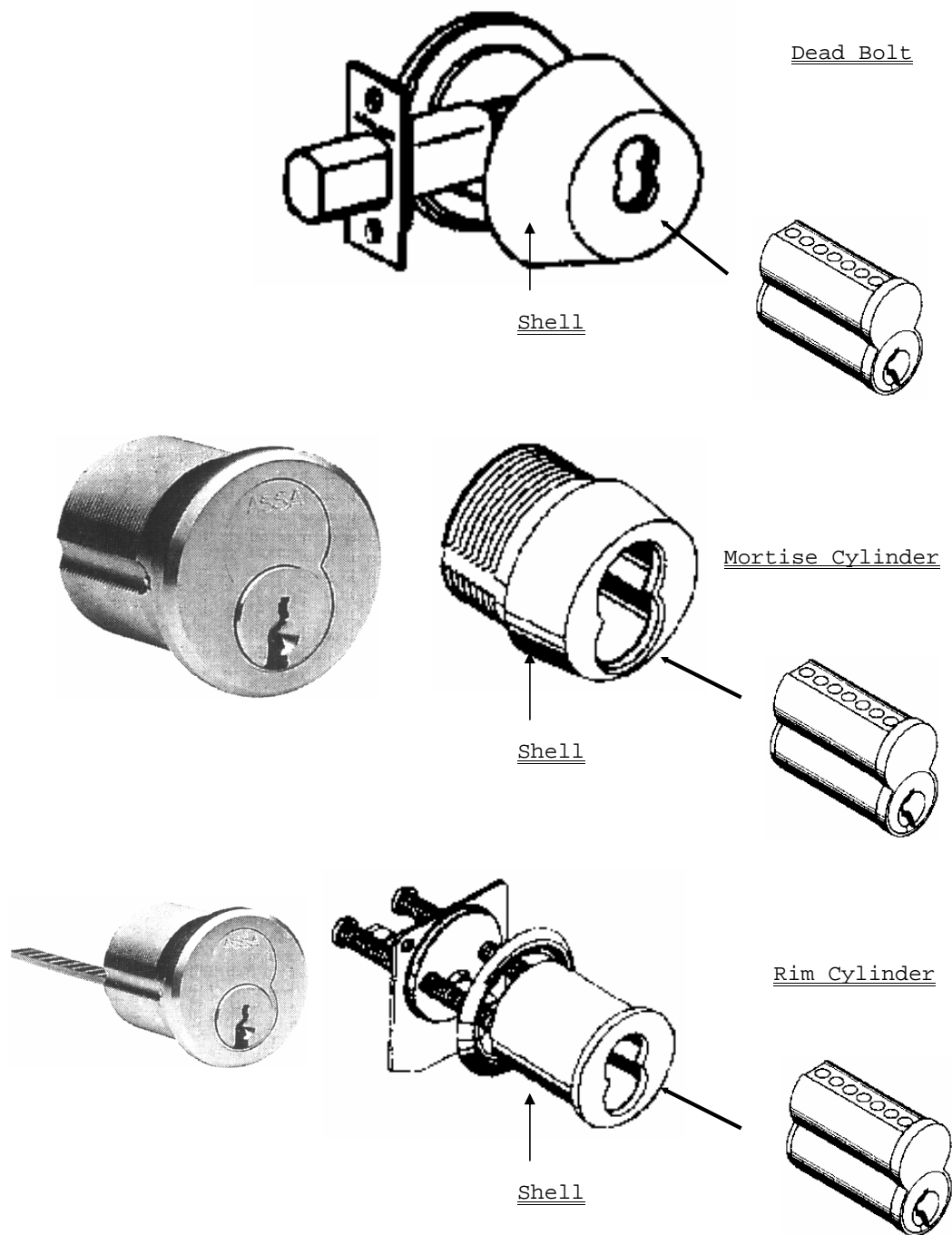
However, it is the initial cost of purchasing the cores and or I.C. Hardware which dissuades the client from purchasing.

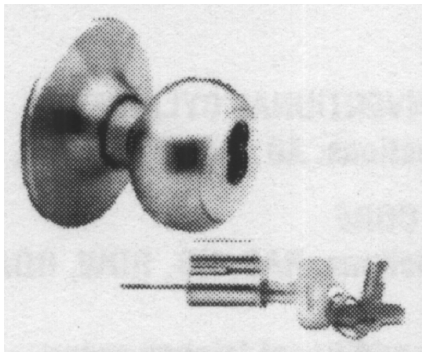
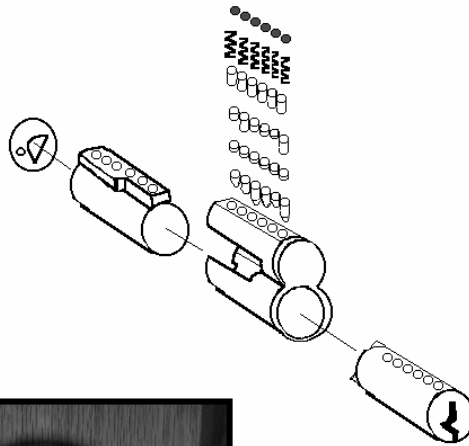
If you were doing a take over or an original hardware installation you would have all of that extra work also. \$\$\$.

Scrambling

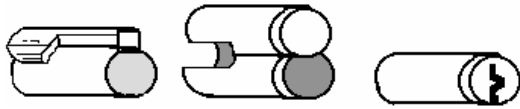
- Scrambling is the proper re-distribution of Interchangeable Cores within a Master Key System.
- The cores should only be Scrambled within the Master / Sub-Master groups that they belong to.
- This involves Cores that are in fine working order only. Only quality Cores should be Scrambled.
Not worn out Cores whose Security has been compromised.

Some colleges use Scrambling extensively. During semester change overs etc, the cores are moved around the campus in an orderly and systematic fashion. The cores are not rekeyed, only moved around. The Locksmith could accomplish the same effect by moving cores from one location to another.

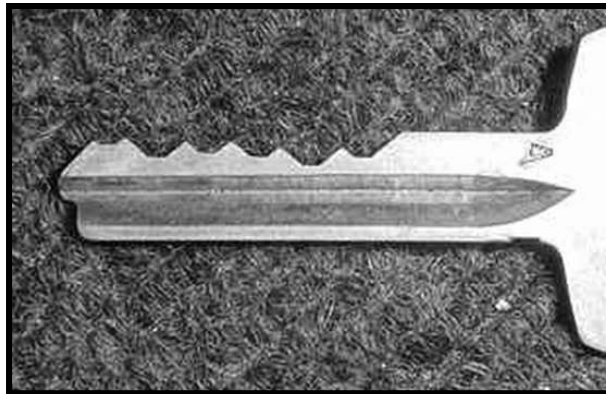




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Always read Tip to Bow



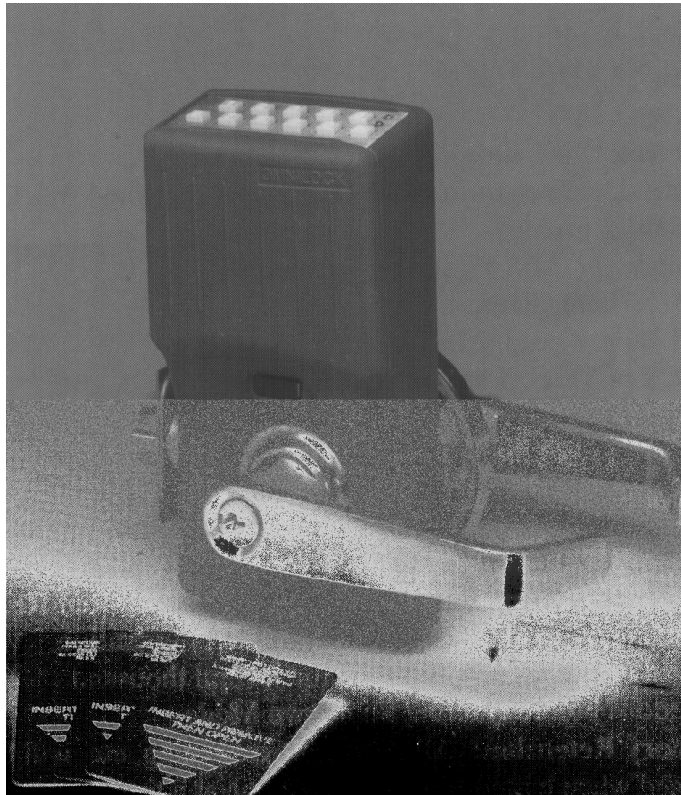
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Electronic IC

Yes, the IC System has been incorporated into Electronics as well.
An Audit Trail may be acquired as well as many other Bytes or Bits
of information.

This is of course today as well as the future.

The Electronic Lock shown here does not have an IC installed,
However this unit does come in IC.



Please do not construe my information here as pushing or advertising
the Omini™ Lock System in any sense. I am merely mentioning them here
as a for instance.

Access Control System 0M2000

The Access Control System Series 0M2000 combines the sophistication of electronic access control with the reliability of a commercial grade lockset. Manufactured in America, the Series 0M2000 provides the superior features and quality that you have come to expect from OSI Security Devices.

- Capacity of 2000 individual users per system o Audit trail of 25000 events minimum (optional key bypass detection)
- The OMNIOLOCK Facility Manager, a Microsoft
- Windows™ 9X/ME/NT 4.0/2000 compatible program, runs on a desktop or laptop computer
- The OMNIOLOCK Data Link, a Microsoft™ Windows™
- CE or Pocket PC compatible program runs on a handheld PC and transfers data between the OMNIOLOCK Facility Manager and the 0M2000 System Lock. No plug-ins or laptops at the door!
- The 0M2000 System Lock consists of a Electronic Module coupled to a Grade 1 lockset
- Access granted via Magnetic stripe card (Track 2 or Track 3), keypad code, or card or code ~ PIN
- Flash ROM facilitates lock software upgrades via infrared communication
- Password protected network-compatible software
- Battery powered (5 years / 80,000 operations)
- Audit records user identity, date and time
- Time schedule controls access for 8 user groups
- Full electronic and electro-mechanical diagnostics may be run without removing unit from the door
- Installs in minutes with a standard ANSI 161 door preparation
- Rugged steel-zinc alloy construction
- Made with PRIDE in the USA
- UL Listed (Cylindrical & Mortise)
- Year 2000 Compliant

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Functional Specifications

ID Types Card ID length variable to 19 digits, Keypad ID 4 to 10 digits in length, and PIN lengths 3 to 6 digits long

Prog RAM M ER ID Upload/download programming data, Change Access Levels, Group Enabling, and Diagnostics. Privileges are assignable. Quantity as required.

Manager ID Enables or disables User Groups, sets Access Levels, privileges are assignable

General User ID Allows access when access level is at ID Required and user group is enabled. Quantity 2000 users less programmers and managers

Facility ID Card Allows common area entry to all cardholders when enabled

Service ID plus PIN, assignable to short-term users. Meets 1992 Americans With Disabilities Act Requirements

Access Levels

Level 2: Free passage - unlocked.

Level 3: Remains unlocked after first valid ID

Level 4: Remains unlocked after first valid ID and PIN

Level 5: Enrolled ID required

Level 6: Enrolled ID and PIN required

Level 7: Facility ID card required

Level 8: Lockout (Manager or Programmer allowed only if privileges have been assigned)

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Audit Log Transactions: Retains last 25000 events, whether keypad, magnetic card, key detection, or the time schedule Variable: The audit trail may be increased by reducing the number of users Events Audited: Ten separate events are recorded Record Format: Date, Time, Identity, Event

Time Schedule Sets Access Level and controls access by user groups automatically at selected preprogrammed times.
May be preprogrammed for holiday period scheduling. Capacity: 144 scheduled events per day, 32 holiday periods User Groups: 8

Internal Clock Resolution: 1 minute with leap year correction
Daylight Savings: Automatic or manual corrections

Wall Mount System Configuration For use with electrical locking mechanisms (Electric Strike, Magnetic Lock, Etc.) Surface mounted to wall.

Outside Module

Height: 7.45" **Width:** 3.81" **Depth:** 2.34"

Material: Zinc alloy

Finish: Durable storm gray powder coat (optional Black and Satin Chrome)

Keypad: 11 ABS Plastic buttons with wear-resistant characters

Card slot: Accepts Standard thickness Track 2 or Track 3 Magnetic Cards.

Batteries

Type: Four size "AA" 1.5 Volt Alkaline

Expected Life: 5 years / 80,000 operations under normal operating conditions(40 to 80 °F room temperature).

Low Battery Warning: LEDs will flash Green-Red-Red on each entry to alert users of a low battery condition. Normal operation will continue for several thousand operations before entering Shutdown Mode.

Memory Retention: All codes, programming, etc. will be retained when batteries are replaced one at a time.

Latch Face: Brass, bronze or stainless steel face plates. 2-1/4" x 1-1/8".

Strike Plate: Square corner, 1-1/8" x 2-3/4" T strike with 1-1/4" lip-to-center dimension; ANSI Standard 115.3. **Mortise**

Handing: Field reversible. Shipped right-handed.

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Door Thickness: 1-3/4" standard.

Key Cylinder: Solid brass 6 pin cylinder with two brass keys. Keyed 5 pin with Arrow 'CS' keyway.

I/C Core: For use with 6 or 7 pin I/C cores (I/C core not included)

Finishes: 605-US3 (Polished Brass), 606-U54 (Satin Brass), 612-USIO (Satin Bronze), 613-USIOB (Oil Rubbed Bronze), 625-US26 (Polished Chrome), **626-US26D (Satin Chrome) Standard.** No split finishes.

Trim: Thru-bolted with independent springs for each lever.

Function: Lever retracts latch bolt from either side unless the outside (cylinder side) is electrically locked. Unlocked from outside with valid ID, valid card, or by key. Inside always free passage

CE Device or
Pocket PC

Installation: Standard ANSI door preparation for cylindrical lockset with 2-3/4" backset and door stop not greater than 3/4". Two anti-rotation holes required. Weatherized models require an additional 3/4" diameter through-door hole.

Lockset Specifications

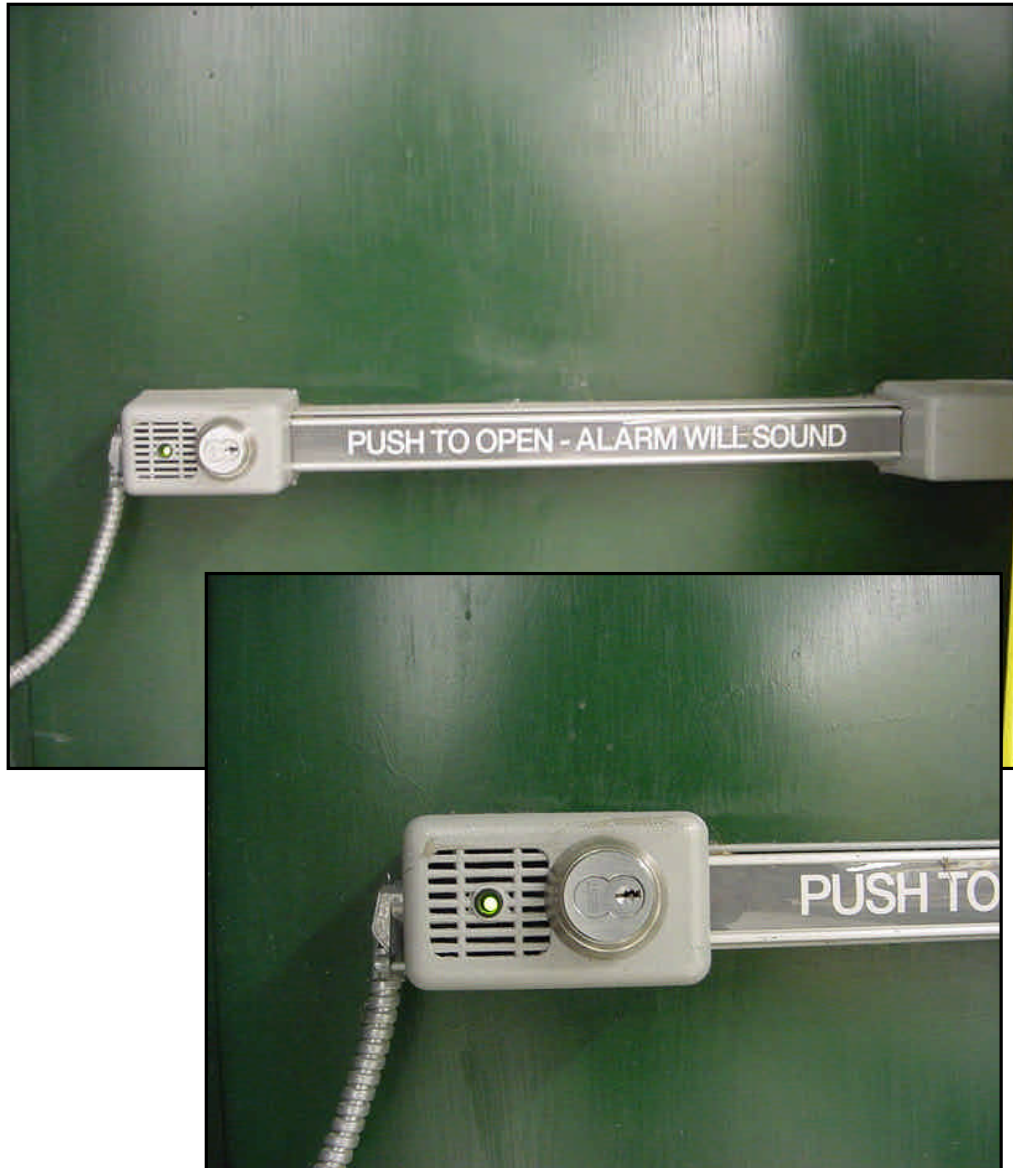
Lock Body: Heavy duty Grade 1, made in U.S.A.

Material: Cold rolled steel and zinc dichromate finish for oxidation resistance with precision cast steel retractor. 2-1/8" diameter bore is required.

Latch: 2-3/4" backset standard, brass with 1/2" throw. Housing is steel-zinc dichromate finish for oxidation resistance. 1" diameter bore is required.

Fire Crash Bar With IC

Here is an IC Core, used in a Rim Cylinder Shell, which is utilized on a Crash Bar, with a sounder powered by Electronics.



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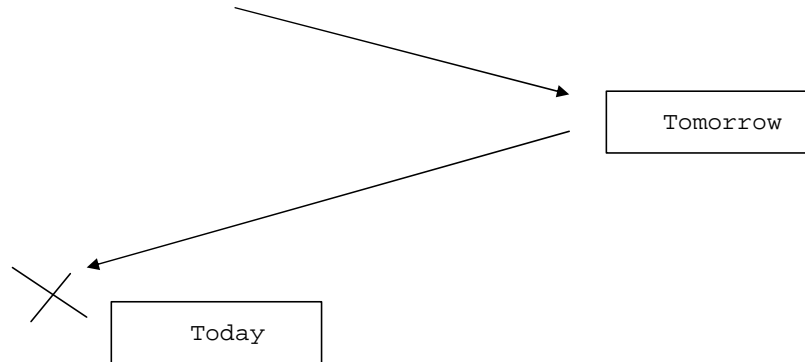
IC Tomorrow is Here Today

Cool Stuff isn't it?

Retina Readers, Signature, Biometrics.

Biometric Technology is the future as well as X10.

Check it out. Tomorrow is Here Today.



Thus I express the importance of Knowing and Applying Low Voltage to the student.

Electronics is the Wave / Freque of the Future.

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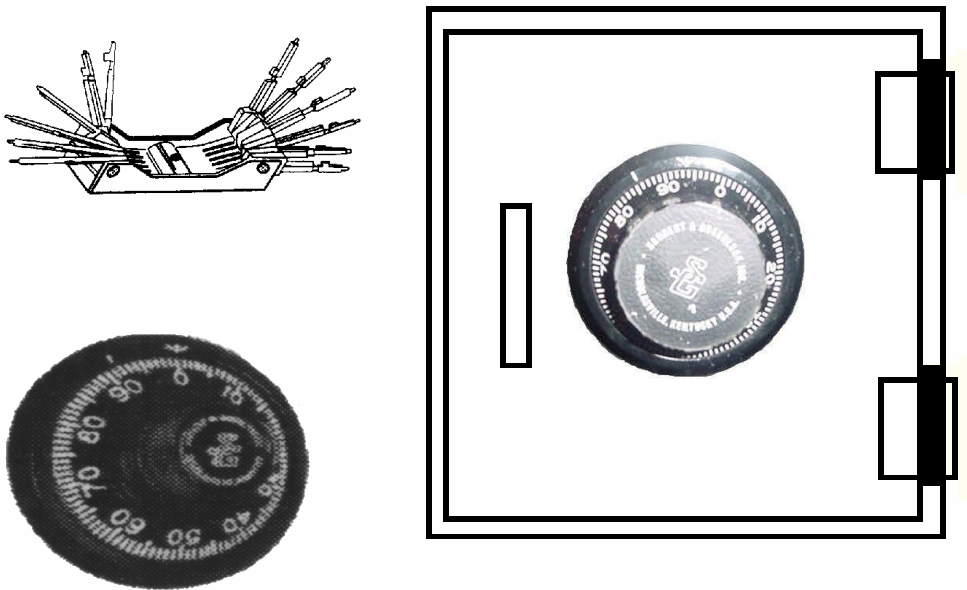
Positive Ethics Security Training©
P.E.S.T. Training

Dictionary Phrase:

Basic Safe Work and Changing Combinations©

Remember to use your

Master Locksmith Security Encyclopedia Set© Dictionary©



Basic Safe Work

Basic Safe Work is a phrase which I refer to when describing the basic steps in order to get one started working with safes.

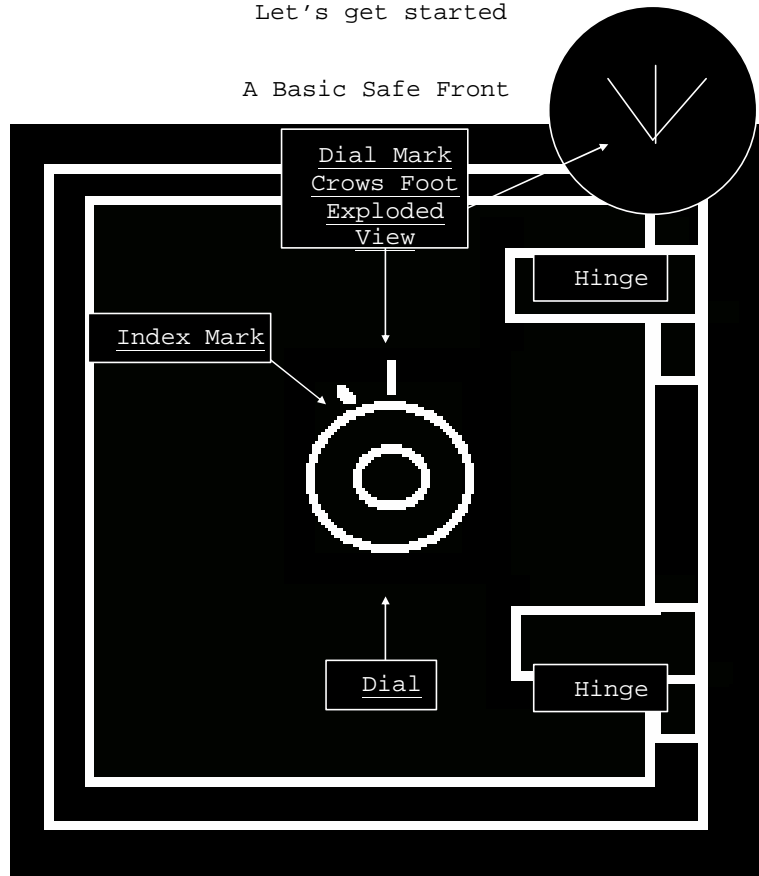
As I have stated previously elsewhere in the Master Locksmith Security Encyclopedia Set©, I am not fully knowledged in some specific fields.

I do possess a working knowledge of the basics of Safe Work, and will proceed to instruct you. I would suggest further research if one is interested in continuing in this field.

My objective here is to guide you in the correct direction.

Let's get started

A Basic Safe Front



Picture SF 1

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Picture SF 2

For our discussion I am using a
Gardall™ brand Safe.

The Dial and the Lock Box is a
Sergeant Greenleaf and both are of
quality. The S&G may be seen on the
Dial Face.



Picture SF 3

The Outside dimensions are
approximately

14 ¾" Wide
20" High
16" Deep

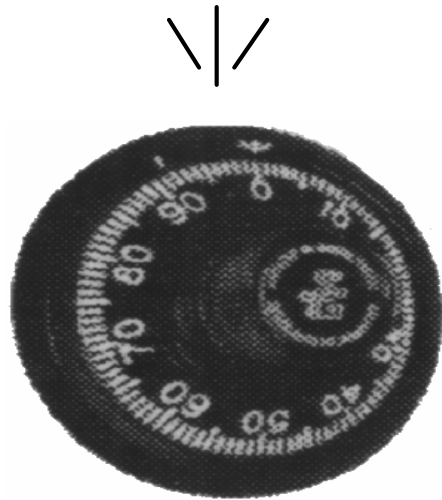


Changing a Safe Combination Using a Safe Change Key

We will start performing a basic Safe Combination Change utilizing a Change Key.

The Safe is dialed open with the old Combination using the Dial Mark as reference. Usually a Crows Foot mark or single mark will be found.

Picture SF 4



Picture SF 5



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Usually a three number Combination is used.
First the Dial is cleared in one direction at least four full complete turns.

* You must make note at this time that after dialing the Combination out correctly, if the safe fails to unlock, try the Combination again starting to turn the dial in the opposite direction.

There are actually four numbers when dialing the safe Combination. The first three numbers are the Direct Digits and then the last number is dialed to the Drop In Point. This is the reason that before dialing any Combination numbers, the dial must be cleared at least four times in one direction to clear the Clutches and Wheel Packs. This clearing of the dial must be in the correct starting direction.

First, the dial is cleared in one direction at least four full turns.

A half dozen turns is best. It does matter in which direction you first turn the dial either starting Counter Clockwise or Clockwise.

Without knowing you might have to try in one direction and if that fails try the other direction. If the client is not sure what the Combination is or might be, try mixing the known numbers up. The last number first, the middle number last etc...

Dialing Out the Correct Combination Example:

If your combination was 17L, 64R, 25L we would perform the following.

17 left (4 turns) / 64 right (3 turns) / 25 left (2 turns), turn back to the drop in. The Drop In Point usually stops the dial from turning. The Drop in Point number maybe from around 90 to about 10.

Clearing the dial in the chosen direction or (correct direction) (Counter Clockwise for my Example):

- Clear the Dial Counter Clockwise (left) at least four turns (Minimum).
- Stop at the Crows Foot with the first number that is to be dialed. In this case 17 L.
- The second number is then dialed in the opposite direction (Clockwise) stopping on the second number 64 R as it approaches the Crows Foot on its third pass.

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- The third number 25 L is then dialed twice in the opposite (Counter Clockwise) direction, stopping on it on its second pass.
- The Dial is then turned in the opposite direction until it stops. This is called the Drop In Point.

Four turns, three turns, two turns and back to the Drop In Point.

The Safe door is now opened.

Inside the door of the safe; accessed though the safe doors inner cover if there is one, is the locking mechanism. Lock Box.

The Dial Box (Lock Box) houses the Wheel Packs, Locking Bolt and other pieces.

The first number you dialed is actually the furthest wheel from you in the Wheel Pack when viewing from the front of the Safe.

The first wheel pack is the closest Wheel Pack to the back of the Lock Box when the Lock Box cover is removed and the contents viewed.

The second number is the next wheel pack toward you as viewed from the front of the Safe or the second Wheel Pack from the back of the Lock Box viewing the contents.

The third number dialed is the first Wheel pack as viewed from the front of the Safe, or the furthest wheel in the Wheel Pack as one views the contents of the Lock Box.

The last number which is the drop in number is actually the Spindle itself which carries everything on it.

The Safe Door should now be opened. And the Lock Box cover is in place.

If the Safe is not yet opened, and you have the correct Combination, try the Combination starting in the opposite direction.

If this failed try the numbers reversed etc...

After the Safe Door is open, the Locking Handle is turned as well as the Dial, thus locking the safe door with the safe door opened.

It is, so to speak, Locked in a door open position.

The Rating Tag may be seen as well as the Key Slot and a Warranty Sticker in our next **Picture**.

The 1985 sticker price of \$323 dollars may be seen as well as some drill holes made for the attaching of a Magnetic Contact.

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Picture SF 6



Picture SF 7



The "Stepped" Door may be seen in **Picture**. This helps prevent any Fire from simply licking through any cracks and completely ruining the safe contents.

The construction of the sides of the Safe actually extends a little bit further past the bottom and therefore give a sharp hold to anyone trying to slide there fingers under and lift.

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I have known individuals who would grind these edges razor sharp in the attempt to slice any frisky perpetrators.

Note the edge of the door and how sharp edged the steel face is. This is similar to the bottom of the sides.

The bottom has a hollow area.

The wheels/castors have been removed from this safe.

Picture SF 8



The "stepped" Frame may seen here which matches the door steps.

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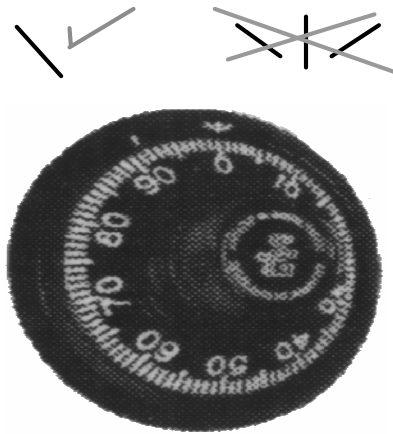
Installing a New Combination Part I

The Safe door is opened and Locked in the open position.

The old operating Combination is then re-dialed using the Index Mark as a reference point. Do not use the Dial Mark / Crows Foot this time.

What ever the Combination was that was used to dial open the safe door, is the Combination you will use in the next step in order to dial in the new Combination.

Picture SF 9



You may want to use a piece of masking tape to cover over the Crows Foot so you do not get confused. I may place my thumb or finger over it and concentrate on the Index Mark.

If there are three sets of numbers dialed, example:

17L, 64R, 25L

After clearing the Safe Dial at least a half dozen times (four times minimum), the first number is dialed to the Index Mark stopping on the number 17L at the Index Mark.

The next number 64R would then be dialed in the opposite direction after passing the Index Mark with the number 64R, twice. Stopping on the number 64R as it appears the third time at the Index Mark.

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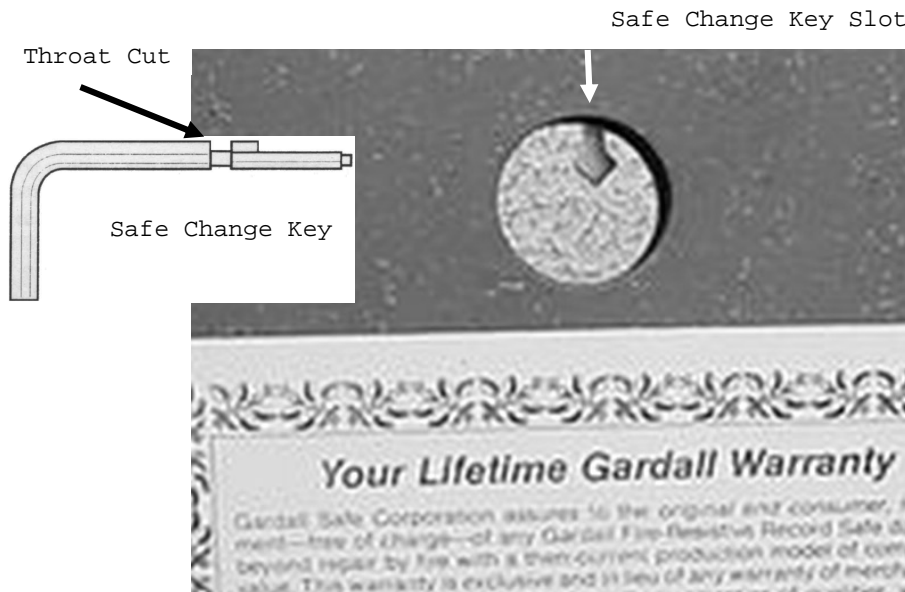
The number 25L is then dialed in the opposite direction passing the Index Mark once and stopping on the number 25L the second time it comes to the Index Mark.

At this point you stop Dialing. You DO NOT dial to the Drop In Point.

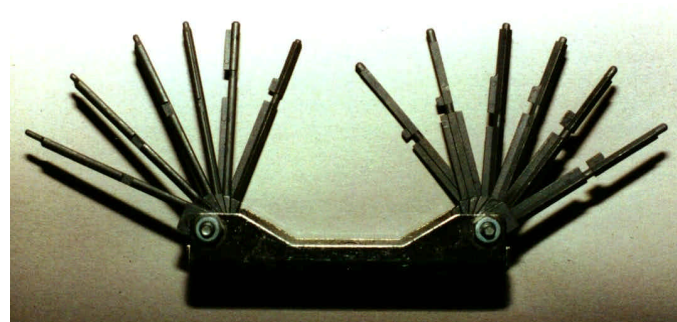
Installing a New Combination Part II

The correct Safe Change Key is then inserted into the Key Slot in the back of the Safe Door and into the Dial Box. The Safe Change Key is inserted completely to the Throat Cut. It is then turned a quarter turn. It will only turn one way and stop. Do not force the key any further. It is then left in this position with the Safe Change Key in place.

Picture SF 10



Safe Change Key Set.



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*** *Installing a New Combination Note:***

The Combination should never be changed without the back cover of the Lock Box in place. You will notice on some Lock Boxes that there is a Lock Bolt Activator which will only allow the Lock Box Locking Bolt to be retracted when this Lock Bolt Activator has been pushed in by the Lock Box back cover.

I have, and I will remove the back cover of the Lock Box in order to find a "Lost Combination", and I have lined up the wheels to the Gates and or Locking Dog. Later on this.

I will lubricate the Spindle at this point.

The safe door is still open.

The new Combination is then dialed to the Index Mark.

New Combination example:

15L, 33R, 42L

The first number is dialed to the Index Mark after clearing the Safe Dial at least a half dozen times (four times minimum) stopping on the number 15L at the Index Mark.

The next number 33R would then be dialed in the opposite direction after passing the Index Mark with the number 33R twice. Stopping on the number 33R as it appears the third time at the Index Mark.

The number 42L is then dialed in the opposite direction passing the Index Mark once and stopping on the number 42L the second time it comes to the Index Mark.

Stop. You DO NOT Dial back to the drop in point.

The Change Key is then turned back to the insertion point and removal position and then removed from the back of the Safe Door.

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The Safe Door Is Still Open

The new Combination is then dialed to the Dial Mark Crows Foot) and checked for correct operation AT LEAST THREE COMPLETE TIMES BEFORE CLOSING AND LOCKING THE SAFE DOOR.

Try the new Combination and unlock the handle. Lock the handle and clear the dial locking it. With the safe door open.

- The safe door is still open.
Try the new Combination and unlock the handle.
Lock the handle and clear the dial locking it.
- The safe door is still open
Try the new Combination and unlock the handle.
Lock the handle and clear the dial locking it.

The safe door is still open

Remember, the safe door is open, but in a Locked door open position as you try your new Combination three complete times without failing.

After the last Combination number is dialed, the Dial is usually turned in the opposite direction to the number 90 or number 10 to the Drop In Position.

There are actually four Combination numbers.

The three dial numbers which are dialed and changed and the fourth number which is the Spindle itself being dialed to the Drop In Position.

**The New Combination Is Dialed Three (3) Consecutive Times
Unlocking the Handle,
Before The Safe Door Is Shut and Locked.**

If the new Combination is dialed wrong during the Combination changing process;

Leave the Safe Change Key in the Combination change position and clear the old number at least a half dozen times, and then start over.

Re-dial the new Combination again.

Take your time and have patience.

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And never, ever, close and lock the safe door without trying the new Combination three (3) separate and complete times.

The Bolts have been extended here into a locked position.

The safe door is still open.

Try the new Combination and unlock the handle.

The safe door is still open, lock the handle and clear the dial locking it.

This is a well made Safe.

Picture SF 11



Practice

Purchase a Lock Box or a Safe.

Disassemble and reassemble a lock box. Purchase a new one and investigate it. Purchase a safe for yourself and study it.

Go slow and be careful. It is actually fun.

You will not only have a learning experience, but you will have a new lock box and or safe in stock for your own use or to sell.

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Lock Box Disassembly

If you remove the back cover carefully you will see the end of the spindle with the Wheel Packs.

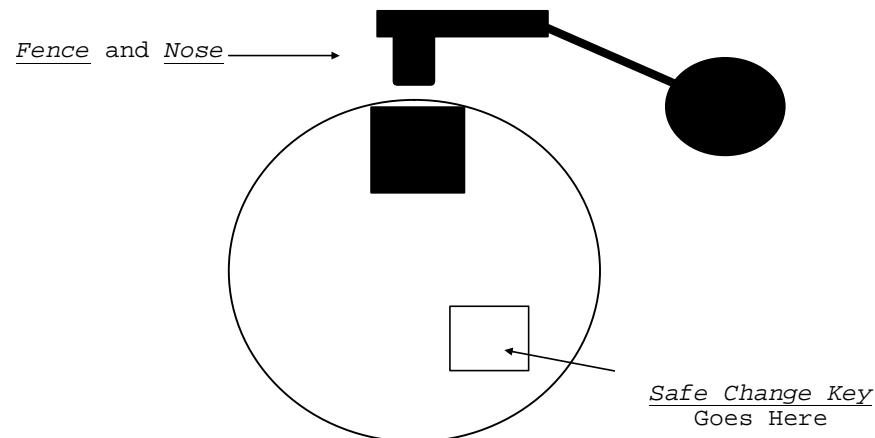
You will notice an "L" shaped shim (Spline Key) in a slot at the end of the spindle.

You will also notice letters stamped around the spindle. Make note of which letters are where the Shim or Spline is located. RH, LH, VU, VD. If you disassemble the Lock Case (Lock Box) and the spindle and workings, you must return the Spline key to the correct marks. RH, LH, VU, VD. You are supposed to use a new Spline Key when ever you have removed the old one. So, you will need to order extra Spline Keys if you plan on dissecting your lock Box. I have used the old Spline Keys without a problem, but several safe persons have told me that the Spline Key should be replaced.

After removing the Spline key, the wheel that the Spline key held may now be unthreaded Counter Clockwise. The Wheel Packs may now be removed. As you remove parts lay them out in a neat and orderly fashion. In this way reassembly will be easy. Take your time, it is not that difficult. In fact it is easy. Try it.

The wheels have a large notch on the outside edge. This is called the Gate. The Fence is the bar with the nose on it. The Fence drops into the gates allowing the bolt to be withdrawn.

Picture SF 12



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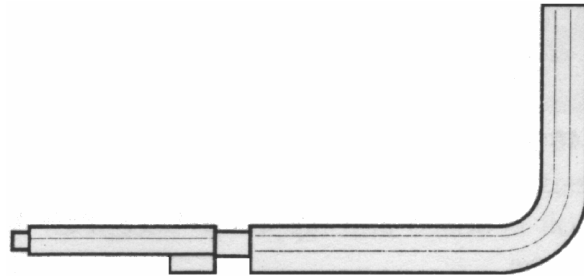
Each wheel has a square hole (the Locking Cam) in it where, when the back of the Lock Box is in place, the Safe Change Key is inserted into the Locking Cam Hole up to the keys Throat Cut and turned in order to change the Combination.

This square hole may be Un-Locked with the change key and Locked again. If you play with the wheels using the Change key you will see what I mean.

A Safe Combination Change Key:

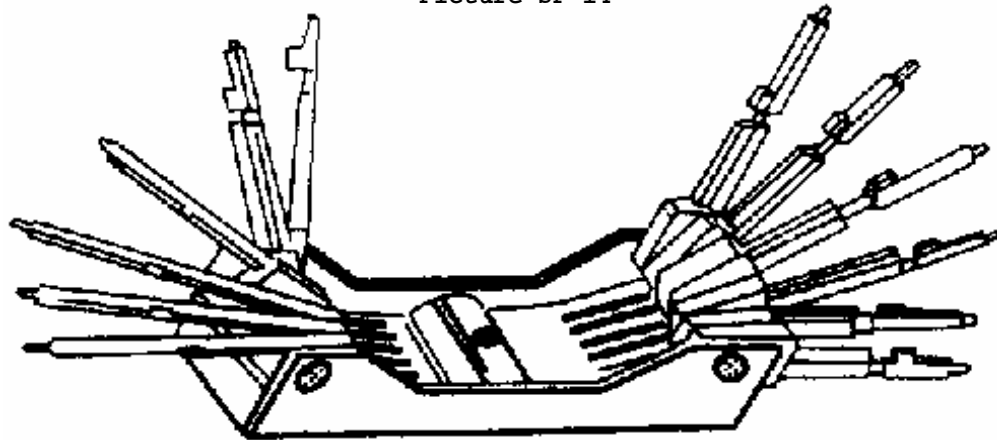
Picture SF 13

Change Key



A Multi Safe Combination Change Key Set:

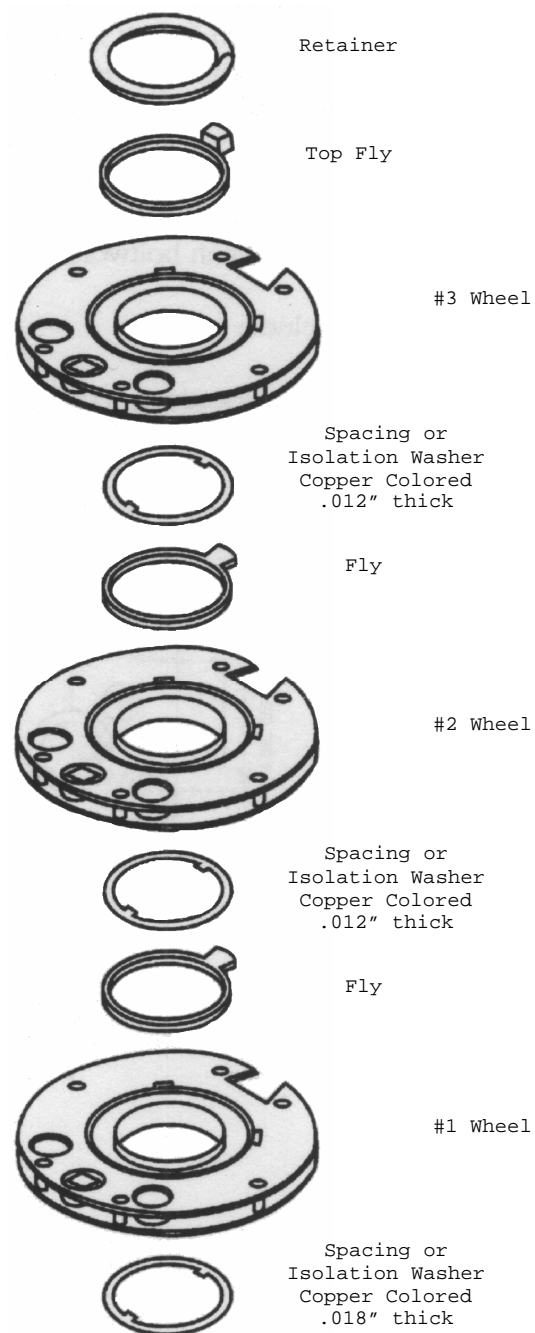
Picture SF 14



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Wheel Pack View:

Picture SF 15



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Finding Lost Combinations

Should you loose the Combination while changing one, do not panic.

If the Combination is lost, with the back of the Lock Box off, I will either try to line up the gates on all of the wheels dialing the sequences of left, right, left (or right, Left, Right depending on the sequence), or I will line up the Locking Cam holes (square Holes) on each wheel.

In order to line up the Locking Cam holes; I will look at the back of the Lock Box (Lock Case) back as it is mounted on the back of the Lock Box.

I will make note of where the hole placement for the Locking Cams Change Key is located. I then take the back off the Lock Case off.

Approximately where the Locking Cam Change Key hole was located on the back of the Lock Case, I then line up the Locking Cams on each wheel.

This is accomplished by dialing Clockwise or Counter Clockwise as we would any other time, except we watch the wheel packs as we dial.

We follow our same clearing; four, three, two dialing routine.

The Locking Cam should line up where the safe change key would be located on the first wheel pack after it is cleared.

The second wheel pack and then the third wheel pack.

And stop.

When all of the locking cams are lined up from the dialing sequence stop.

Do not dial back to zero or any other number or drop in point.

Replace the back cover carefully and insert the Safe Change Key and turn a quarter turn thus freeing the Locking Cams.

You now continue as you would when installing a new Combination.

You will find that the Locking Cams may be turned independently of each other and one may not know which wheels are secure or free.

This is not a problem.

I will even use this method to line up all of the locking cams.

If the locking cams are free the wheels will be sloppy and just keep spinning or not move at all. Line up all of the wheels with the Locking Cams in position of where the safe change key hole would be located.

Insert your change key into that particular wheels locking cam and turn the key. I found that when the flat edge of the Locking Cam is toward the outside of the wheel it secures the locking cam. Looking at the back of the Lock Case, I start with the wheel which is closest to the dial and work my way out. Securing each cam as I go.

Practice, practice, practice.

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Take the lock box apart a little at a time, gain some confidence and then put it back together.

Do this several times and when you feel more comfortable go a little deeper the next time with disassembly and reassembly. Keep continuing with these learning steps.

The back of the lock case must be replaced in order to test for correct operation. The back cover Locking Bolt activator must be manipulated.

You need to acquire a Lock Box for study and work with it.

The dial may be slid right out the front of the lock box and replaced if need be. They get bent and damaged.

Put everything back together in reverse order.

When you put the wheel (which was held by the Spline key) back on, you will thread it on clockwise. This is threaded down until it is just snug and it comes to rest at the marks that you made note of earlier.

It should line back up to the shim slot and wheel letters perfectly.

Snug or just a little loose. Using your pliers replace the Spline Key.

The dial should turn freely with out drag, yet not sloppy and loose.

Toothed Combination Wheels

The Combinations are changed by changing the position of the Toothed Wheel Insert.

Open the Safe as described previously in safe Combination change.

After the safe is opened, first remove the back of the Lock Box itself.

A Snap Ring type retainer may be found retaining the Wheel Pack.
Remove this snap ring type keeper carefully.
Remove the washers and Toothed Change Wheels one at a time.
Lay them down the same way and in the same order as they are removed.

From the Inside Out

The last wheel to be removed is actually the first dialed number of the Combination. The next wheel coming (from the inside out) is the second number dialed of the Combination. The first wheel which was removed is the third number dialed and the last number dialed (Dialing the last number to 90 or zero for the final drop in point) is the actual Spindle everything is mounted on.

The spindle is the last "dial until it drops in" number.

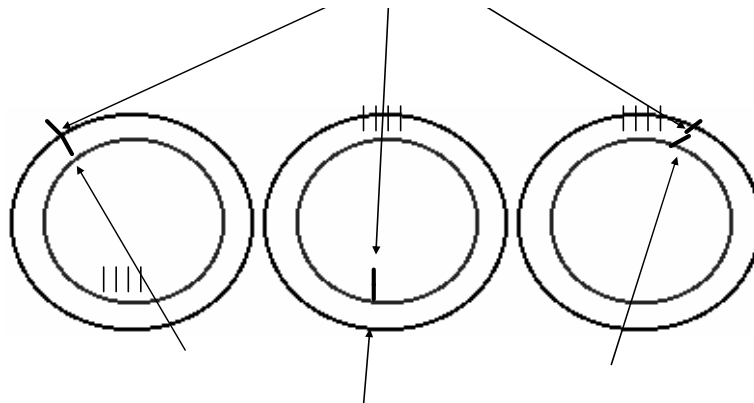
Inside each Combination wheel is an inner toothed wheel. This wheel is carefully pushed / popped out. The inside dial is pushed through the larger outside wheel. The inside wheels dial mark is moved to a new number position on the outside wheel and the new Combination number recorded.

This is performed to each Combination wheel in order and the new Combination recorded.

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The combination number of choice, may be located and
selected on each outside wheel

Picture SF 16



The mark on the smaller inside wheel should be lined up
with the number of choice on outside wheel

Be careful. The numbers are quite small and a mistake may be made easily.

Make sure to read the number in the correct direction. Do not confuse a number 19 as 21 in the wrong direction (using the number 20 as a reference). I have done this myself.

The wheels and washers are then reinstalled in order.

With the door open; the new Combination is then dialed to the working Drop In Point.

Operate the handle three consecutive times locking, dialing and unlocking before the door of the safe is shut and locked permanently.

I have the manager or who ever the Combination was changed for dial the safe open at least three times in my presence before I vacate the premise.

Types of Safes, Tips and Techniques

Burglary Safes

Burglary Safes are those Safes that are not looked at as fire safes. Most burglary safes are fire resistant to a point. They have a concrete type filling.

In some instances the transport wheels are removed so that transporting the safe is difficult. I have known some individuals who not only removed the wheels, but ground the bottom edges of the safe to razor sharp edges to prohibit lifting the heavy container.

I have heard stories of safes that were wired with explosives. I always ask how often a safe has been used and I scrutinize around the safe door edge and look for small wires around the door edge. Tear gas, dyes and other surprises may be in store. The old safe in the basement or attic. Watch out.

Record safes, gun safes, rotary hoppers, depository, concealed wall safes, money chests, pistol safes and safes within a safe are a few safes that fall under the burglar resistant safe.

Some safe dials utilize a key to lock and unlock the dial in order to use the dial.

There are Digital Combination Safes, Dial Combination Safes and there are safes which use a certain finger placement in order to Unlock them. This later type is used mainly for pistols.

Browning makes Gun Safes to protect Fire Arms that are only made of light metal. Anyone could drill through with a hole saw. Go to a gun shop or show and take a look. Go to the Sam type clubs and see for yourself.

I have come across Safes that utilized Tubular Keys and Chicago Double Sided Keys.

Abloy High Security Cylinders and more.

Fort Knox is a good Safe.

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A Local Burglary and Gardall Safes Case History:

5/3/2000 Telephone 1-800-722-7233

A burglary at a local Madisonville Tennessee gravel pit prompted the Gardall safe, Mayflower sales, fire king safe nightmare, again.

Each time I have called Gardall for pricing it was a hassle and to say the least distasteful. Over the past twenty years I have called at least a half dozen times and the conversations always ended with my feeling angry.

Manufacturer, distributor, call, call, call, etc...

This last time was no different. I called and was transferred to Kathy.

I explained to Kathy about the \$1.00 manufacturer price ending up being \$400.00 etc. For those unaware of what I am talking about please read my episodes of manufacturers and distributors.

Well, anyway Kathy panicked and got so angry when I told her that I was an instructor and teaching the same to students, she slammed the telephone down on me.

She never did give me the telephone number of mayflower sales. This was the very reason I called. I had to call back and get the telephone number.

I attempted to acquire the same information from McDonald Dash and we were transferred twice. And no one answered in their Safe division. Oh well they lost the sales.

Mayflower 718-622-8785, Iesha, Rafael, Antonio, all of these people spoke such poor English that I could barely decipher what they said.

Anyway asking for shipping and price quotes etc... Again left me without a sale.

A three hundred dollar Gardall manufacturer safe in the end was one thousand dollars.

And if there are repairs to be made you must contact the factory not the distributor from whom you bought the safe. Again the distributor is only a money making nepotism connection.

I spoke with Rafael who told me about Fire King Safes. I told him that I needed specks and prices.

Rafael said that he would fax the information to me immediately about

Fire King Safes. It never came. Typical "New American©".

I waited for one half of an hour and I had to leave. I called Mayflower back and was told Rafael was on the telephone. I left the site.

It is amazing that these companies are so large and have money.

Isn't it? Thus the Enron's of the world.

Upon my return to the shop I called Mayflower again.

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Mayflower finally sent the fax to Liz but they neglected to send the prices, so now I must call them back again. Tomorrow.

Without prices for "Their" product how could I possibly quote a client a price?

By the way, most of the people I spoke with could barely speak understandable American English. I found it extremely difficult to converse in a communicable dialect let alone discuss Security with any of these individuals.

Each company should procure a copy of the Master Locksmith Security Encyclopedia Set© Dictionary© and gain some insight to Locksmith Security Industry Terminology. After all this is a respectable profession and these individuals should show respect for it.

Look at TYCO ™ and the Billions they ripped USA citizens Off For 2003.

Tyco Is the USA's Security. Tyco Owns "IT".

Like I stated. They need to show some respect for the trade.

In the Wall Safes

Installation

The safe should measure to fit in between 16" on center wall studs. The unit has a face flange which overlaps the stud faces.

With the safe door open it is then bolted through the sides of the safe into the wall studs. The Wall Safe holes are usually pre drilled into the container at the factory and the safe usually comes with an installation kit.

Very easy to install. The Safe Combination Change is usually by safe Combination Change Key.

The in the wall safes come with a mounting template and instructions and are very easy to install.

The safe is then concealed by the use of a picture or other imaginative means.

**The Midnight Call was a Request from an Individual to Meet
Him at the Bank for a Withdrawal**

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Battery Operated Safe Case History:

Liz and I ran into a digital combination safe which the owners could not open.

I gently pried open the plastic box containing the electronic components.

Our close inspection revealed that the battery holder for AA batteries was corroded. Liz left the site and purchased a battery holder at a local electronics store along with some fresh batteries.

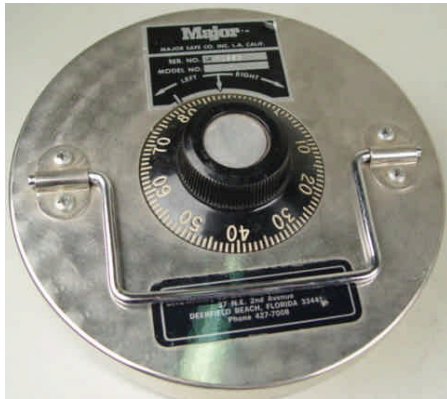
I soldered on the new battery pack, punched in the Combination and the store was up and running.

There are Vehicle Safes which bolt under the seat and when you press a button or remote transmitter, a hydraulic piston extends the strong box from under the seat. A key is usually then used to open the container. Money or a protection device may be kept here.

Rotary Hoppers and drop boxes usually use baffles inside to prohibit the use of a coat hanger and gum when the perpetrator is trying to obtain the containers contents.



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Tubular In Floor Safes

Our Tubular In Floor Safes Example:

"STAR"

The Tubular Safe is cylindrical in shape and usually mounted in a cement floor. The Nose is heavy with a carry handle which swings up over the dial.



The Lock Box is mounted on the back of the nose.

The Combinations are dialed in and are changed the same way as the previous safe examples.

There is one exception to some dial boxes.

After the numbers are dialed (as we stated earlier) after the dial is turned to "0" it is then pushed in and turned. This pushing in and turning is what Unlocks the Locking Bolt.

Some dials intentionally come off the spindle.

The posts on the dial will only fit back on the spindle one way. The dial is made to come off intentionally, so that it may be removed from the location to a more secure one.

Anyone looking at a spindle without a dial and reference numbers is in tough shape.

The back cover has three Phillips screws holding it on to the nose.

The cover will only fit on with the three screw holes lined up correctly one way.

You will notice when the rear cover is removed that there are three large posts that are pushed in against three spring loaded buttons.

Their purpose, I do not know. I believe they must be in pushed in by the rear cover in order for the push and turn dial to operate.

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The Combination change key was not a standard #4 as with the usual safe Combination change. The Change key utilized was a #3.

I recommend purchasing the multi safe Combination change key set.

This type of safe is usually used in a concrete floor.

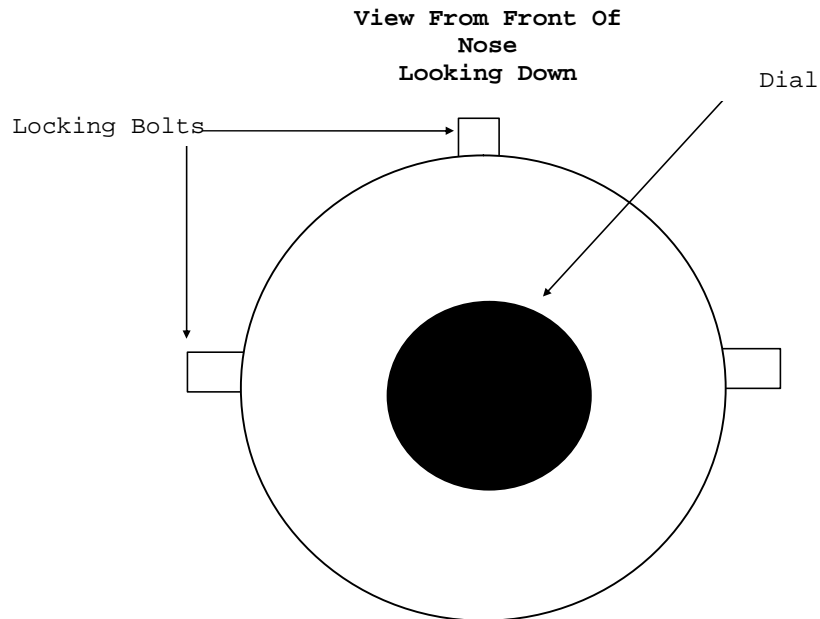
The concrete may be poured around the protective canister in order to make attack more difficult. If the concrete is already poured and hard, the concrete may be broken open and the area beneath removed in order for the canister to be lowered into it. Concrete is then poured around the canister. I have seen a concrete block poured into a corner of the room and the canister installed in this manner.

In the floor tubular safes may be concealed with a steel sheet cover and a throw rug if need be. I knew of one lady that placed a small box floor safe, similar to an in wall safe in the floor of her bathroom. No one ever knew. Some floor safes have a hinged lid that fits securely over the face and aids in the safes concealment.

All safes when opened may be drilled and bolted to their foundation, whether it is wood, steel, concrete etc. When the door is shut and locked the retaining bolt or bolts are inaccessible and security of the container increased.

Our Tubular In Floor Safes Example: "Major" Type Safe

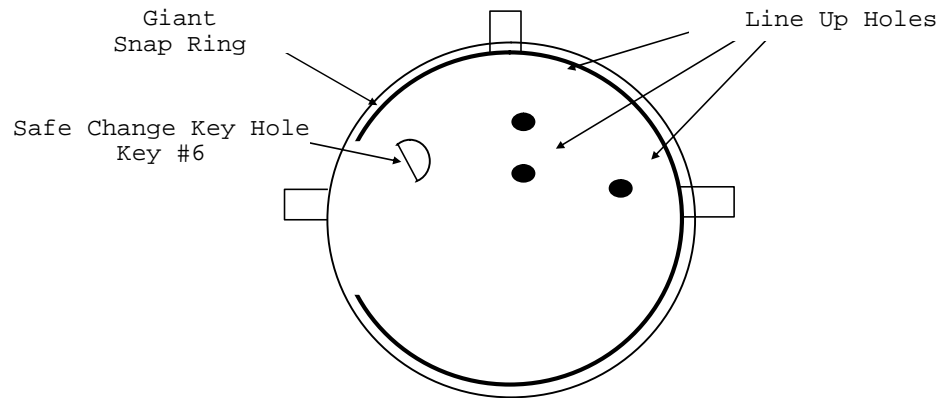
Picture SF 20



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Picture SF 21

View From Back of the Nose



Remove the giant snap ring and remove the back cover.
You will notice that one of the "Line Up" pins has a sleeve over it.
This sleeve and pin must be in place for proper operation.

Line up the wheel clutch key slots watching them and then turning
the dial in the 4,3,2,1 sequence. Line up all of the clutch key
slots, so they are lined up correctly where the back cover will be
reinserted.

I found the lost Combination, by lining up the clutch slots and then
replacing the cover and inserting the correct safe change Combination
Key #6.

The clutch and key slot is the elongated slot on each wheel pack.

Make sure that the back is replaced on the rear of the box before
inserting and turning the key.

Insert the correct key and turn Clockwise one quarter turn, until
the key stops turning. Dial in the new Combination using the correct
mark.

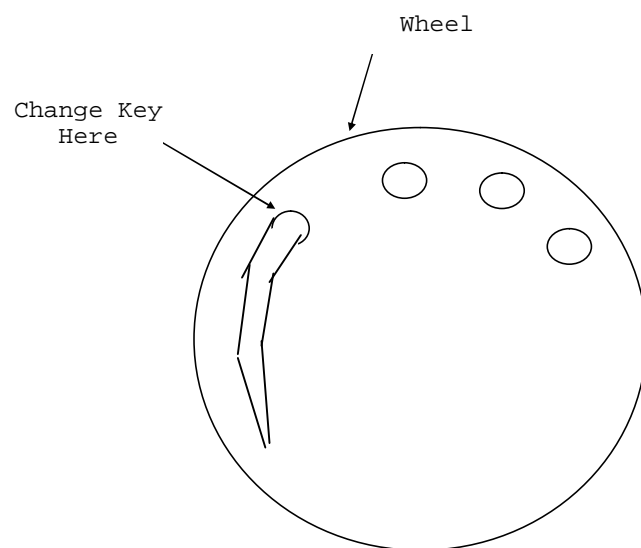
Use the 4,3,2,1 sequence and then turn the key counter clockwise,
locking the wheel packs.

Remove the key.

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Try the new Combination at least three times before locking the removable nose into place.

Picture SF 22



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Major Square Container Case History:

5/10/2000

The handle would not retract the Lock Bolts.

The safe door was open. There was a cover over the lock box that was removed by removing two screws. The Re-Locker and spring were held back by a plate attached to the lock box. This Re-Locker plate had shifted and was blocking the bolt from retracting. I removed the plate which allowed the back of the lock box to be removed. I gave a quick visual inspection to see if all appeared all right.

I then returned the back of the lock box to its position and replaced the screws without the re-lock plate. A group 2.

I dialed out the old Combination to the change mark I inserted my change key, turned it a 1/4 turn and entered a new Combination. I then locked my change key a 1/4 turn and removed it from the back of the lock box.

I then removed the two rear lock box screws so that I could replace the re-locker plate.

I re-adjusted the re-locker plate and tightened the screws.

The cover was replaced.

With the safe door open I dialed the safe Combination three times. Each time checking the handle to see if the lock bolts would be retracted correctly.

When I was satisfied, I had the manager dial the safe Combination three times in front of me to make sure it worked and Liz and I were paid.

Time, thirty minutes.

\$130.00.

Fire/Burglar Proof Safes

Let me start first by saying that, nothing is proof. Only resistant.

A Fire Safe such as those called sentry are usually fire proof (Resistant).

The walls of the Record Safe are filled with fire proof insulation.

The Record Safe is good for keeping important papers in, against the possibility of fire. It depends on how hot the fire is as to how charred the papers are after a fire.

It is of course better than no protection at all.

All fully insulated Record Safe contain moisture in the insulation.

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This moisture is what protects the contents of the Record Safe during a fire.

The moisture helps keep the temperatures below 300 degrees Fahrenheit.

The charring point of paper is 420 degrees Fahrenheit.

Fire Safes/ Record Safe come with ratings.

The rating is in reference as to how long a Safe will withstand a predetermined temperature and prevent the contents of the safe from being destroyed.

A Fire Resistant Safe will provide the protection one needs in order to remove charred edged documents from the security container. It is better than no documents at all.

Play (Safe) - this is part of the underwriter's laboratories (UL) standards when referring to a fire safe; this allows for the expansion of the unit during severe fire. This also allows for the gradual release of internal pressures which may build up during a fire.

The smaller the fire safe the easier it is to steal.

The fire safe when open may be bolted to the premise.

Safe Ratings

Safes come with different ratings as to their protection against Fire and or burglary.

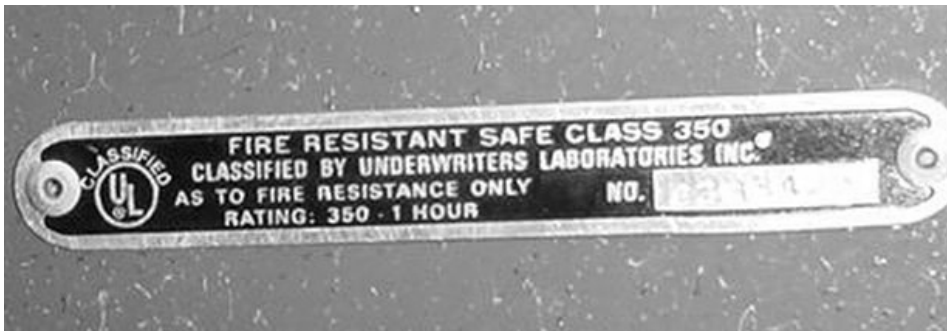
Safes utilize different metals for protection as well as insulation and fill.

The Safe Field is an occupation unto itself and an entire lifetime or more could be devoted to this field.

I personally know my limitations and call a Safe Person when needed.

I will simply sub out the work.

Picture SF 17



Sentry Fire Safes

Gaining Entry In to A Sentry Fire Safe Case History:

I used a hole saw with a pilot bit mounted in it.
The tip of the pilot bit should protrude no further than 1/8".

I flipped the safe over upside down. I would be working from the bottom of the safe.

I then would drill the outside of the safe wall until the steel plug made by the hole saw may be removed.

I then chisel or use a concrete bit to remove the insulation from the hole. The hole should be cleaned of the fire proofing for it will quickly dull most cutting and or drilling apparatuses.

When the hole is cleaned out from the fire proofing I then use the hole saw again and drill the second safe wall until the steel plug maybe removed from the safe wall.

I then used a flash light and a super long flat head screw driver.

I removed the screws from the back of the Safe doors inner cover exposing the wheel pack. I then used the super long screw driver to manipulate the wheels and open the door.

I am sure that a Safe Person would have done it differently, but this is how I did it.

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***A Sentry Drawer, File, Fire Safe Utilizing a Key
Changing the Combination***

To change a Combination on a sentry fire, 2 drawer, file safe that utilizes a key. Key blank Y111.

With the lower drawer open, remove the four small nuts on the back of the drawer. The drawer front may now be removed.

With the drawer laying on its face and the workings exposed remove the screw that holds on the lock bolt assembly. Remove the latch and connecting rod carefully. Notice how they are installed.

You will notice a small convex ring at the bottom of the shaft that the lock bolt assembly was removed from. Gently, very gently, pry this ring with two small screw drivers up the shaft. Do not bend, distort or crack this retaining ring. You must re-use it.

Have patience and work the retaining ring up and off of the shaft.

Once the retaining ring is removed the lock may be pushed from the front of the drawer face.

Mount the lock in a vise and drive out the roll pin which is holding the plug in the shell. You must drive the pin out. You can not pull it with pliers. Do not destroy or damage this roll pin.

Once the roll pin is removed slide the plug out of the shell.
To Re-Combine the lock I simply scrambled the wafers.

I then inserted a key blank of the right keyway. I marked the blade edge of the key where a wafer would contact the blade edge with a sharp pointed Pippin file tip. I would remove the key blank and file a bit short of where my mark was on the blade edge. I would then re-insert the blank and check to see if the wafer was flush with the plug. If the wafer was not flush with the plug I would remove the key blank and file a bit more. Return the key to the lock and check to see if the wafer was flush with the plug. I repeated this process with each wafer.

When all of the wafers were flush with the plug, I returned the plug to the lock shell and checked for correct operation.

When I was satisfied with the operation of the working key I then reassembled the lock with the roll pin.

Reassemble the workings in the exact manner by which you disassembled them.

The whole process took less than thirty minutes.

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Servicing a Sentry Combination Fire Safe

Changing the Sentry Combination

There are three ways to change the Combination.
Re-Combining the safe may be done as follows:

- 1) Remove the dial and rotate it 90° degrees on the dial spindle.
- 2) Remove the drive wheel and rotate it 180° degrees on the dial spindle.
- 3) Remove the drive wheel screw and insert it into the adjacent hole in the drive wheel.

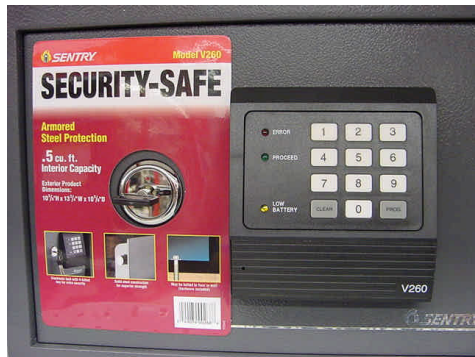
When the above change has been made you must determine the new Combination.

- 1) Turn the dial counterclockwise until the slot in the wheel lines up with the locking bolt pin. Record the dial number.
- 2) Turn the dial clockwise until the slot in the middle wheel lines up with the locking bolt pin. Record the dial number.
- 3) Turn the dial counterclockwise until the slot in the drive wheel lines up with the locking bolt pin. Record the dial number.

The Combination is directly dialed left, right, left. Rotate three turns, two turns, one turn.



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Securing a Safe

Re-Lockers

A Re-Locker is used inside better safe lock boxes in order to help deter forcible entry. The Re-Locker is held in place by a spring. When a pounding, thud, or jolt is strong enough the Re-Locker is released and the Locking Bolt may not be withdrawn. A qualified safe person or the correct template and drilling / penetrating equipment needed. The bolt is then withdrawn and the Safe may be opened.

Bolting the Safe Down

I use a hole saw with a pilot bit mounted in it or a drill bit alone.

The tip of the pilot bit should protrude no further than 1/8".

I drill the inside of the safe wall until the steel plug made by the hole saw may be removed or until the drill bit penetrates through the steel. A right angle drill may be in order each situation is different.

I then chisel or use a concrete bit to remove the insulation from the hole. The hole should be cleaned of the fire proofing for it will quickly dull most cutting and or drilling apparatuses.

When the hole is cleaned out from the fire proofing I then use the hole saw or drill bit again and drill the second safe wall until the steel plug maybe removed from the safe wall.

Using a long enough bolt and washer, bolt the container.

I would repeat the process for several bolts.
Close the door and Lock the container.

The safe and or door may have security system wire installed the same way. The door contacted on the inside. The wire is run through a small hole in the back of the safe.

It must be kept in mind that when one drills a hole and removes the fire resistant material from a safe they are lowering the safes fire retarding capabilities. You may want to try and replace some of the material when installing the bolt.

It is possible that you are violating the manufacturer's warranty.

It is very hard to have both burglary and fire resistant with any one safe.

Entry may be gained into the Sentry fire safe in the same manner.

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Security System Contacts and Wiring a Safe:

Most of the Safes I have been discussing here on these pages are made of light to medium steel and may be drilled with a drill and or hole Saw. The insulation material simply chipped away in short time.

And your wire passed through the hole.

Remember the Fire Rating is now void.

There are many Safes manufactured with Rockwell Steel and other materials.

Mount the magnet part of the two piece Contact on the inside of the door. And then mount the other Contact piece on the Safe Body itself.

Trial and Error will dictate proper alignment and placement.

Measuring with a small ruler etc...

Security System Programming;

I would Program Day Chime 24 hours (Not Dialing out) on the Control panel and when the Safe door was opened the Day Chime would; Beep, Beep, Beep, Beep, Beep, Beep locally and continuously. The Security system key Pad would continue to beep until the violated Door was shut and the Zone Closed and reinstated back into service.

This is a Vault.



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Tear Gas and OC

I thought this was a good place to instruct you of tear gas and other good stuff. Either you can utilize the OC for protection and or else my warning to you, be careful when you work with Safes.

Terminator OC

Stand Alone or an Add On to complete any security system.

This will really stop the thieves. When triggered by its **trip line**, the Terminator will discharge 4 ounces of irritating OC aerosol, causing an intruder to flee in a matter of seconds.

Quickly and easily installed, the Terminator provides another level of protection.

The perpetrators will wish they never gained entry or tried to rip you off.

- Armored (cast aluminum) housing.
- Easily replaceable aerosol can.
- Safety pin that prevents accidental discharge.
- Multi direction trip line installation.
- Fast acting irritating aerosol is harmless to interior furnishings.
- Complete and ready to use - Everything is included.
- Protects up to 2,000 sq. ft. of indoor space.

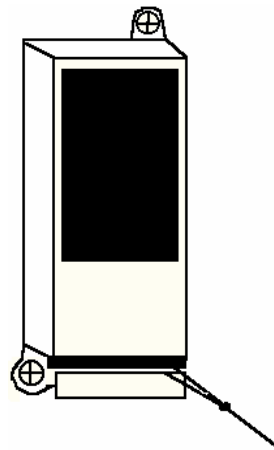
RVL-TERM \$85.00

WARNING:

Not for use in Aircraft or Automobiles.

Replacement can **RVL-TERMCAN \$30.00**

Picture SF 18



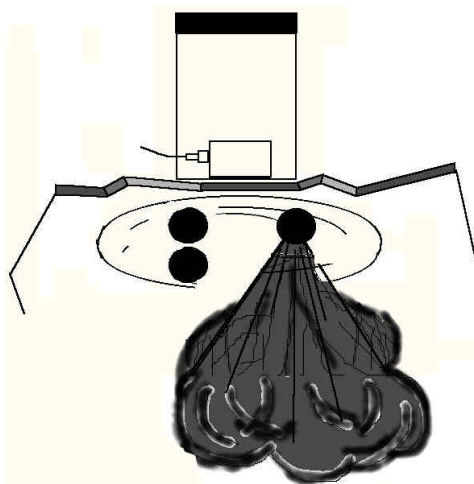
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Repulsar IV OC

Similar in design to the Repulsar I, but the Repulsar IV has even a larger OC capacity and greater application flexibility. Compatible with most 12 volt DC security systems. In the simultaneous mode the unit will fire **four** 6 oz. cans of OC aerosol at one time. Effectively covering 1.6 times the area of Repulsar I. In sequential mode, the Repulsar IV fires one can of 6 oz. aerosol and automatically resets to fire the next canister at the next intrusion, whether hours, days or months later. This unit is ideal for vacation homes, isolated buildings or where complete control of an area is in demand.

Picture SF 19

8 1/4" x 8 1/4" square x 1 1/4"
into room
x



RVL-REPULS-IV

\$350.00

Replacement can

RVL-REPULIVCAN

\$30.00

WARNING:

Not for use in Aircraft or Automobiles.

Safe Deposit Boxes

This is my service kit.
The top tray holds the left and right noses as well as several lock bodies.

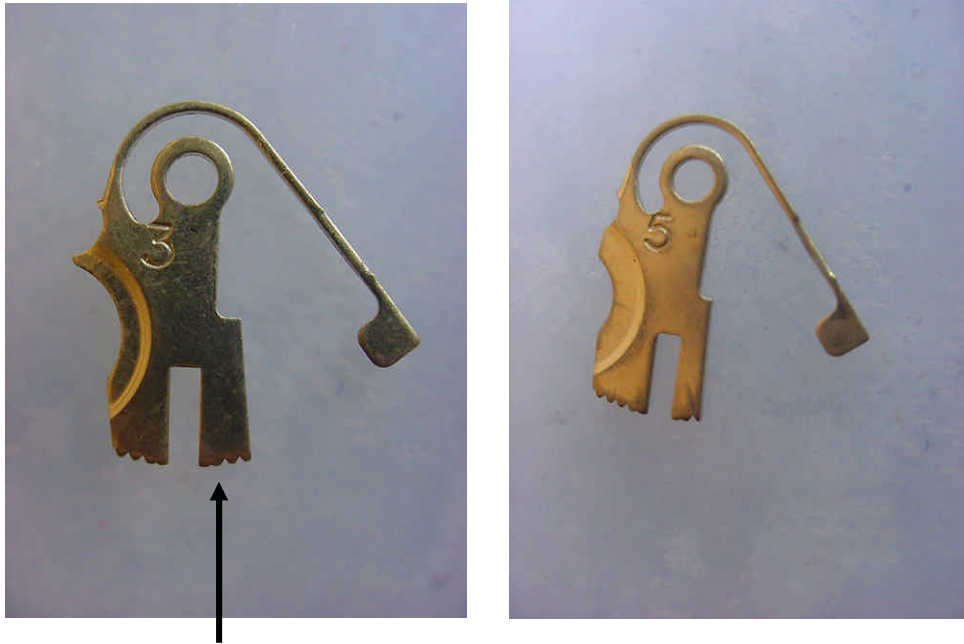


A clear plastic parts box is kept under the parts tray.
Keys, Blanks, Wards and parts are kept here.



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The Wards are seen here with their Depth Stamped onto the face.



The small serrated teeth help to hamper and prohibit picking attempts.

One attempts to line the slot/gate up of each ward, so the slot is lined up on all of the wards at one time, in order the bolt slide into it.

